The February TECHNOLOGY REVIEW

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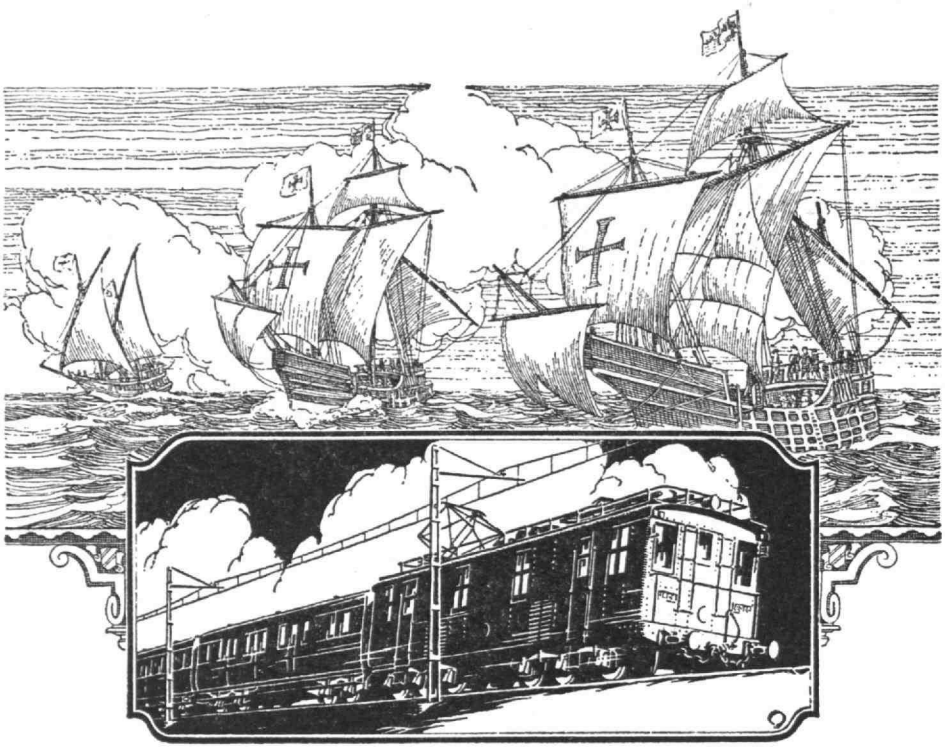

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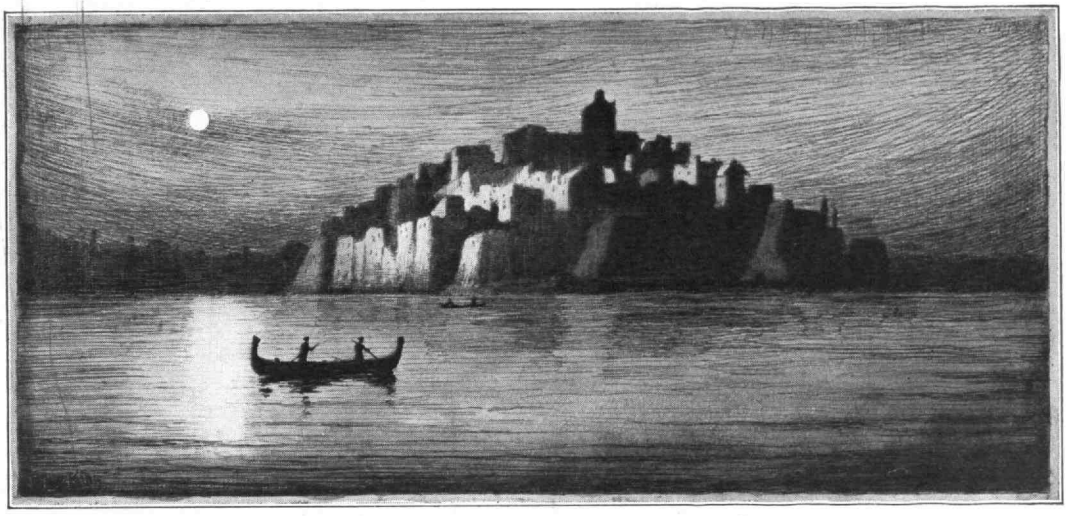

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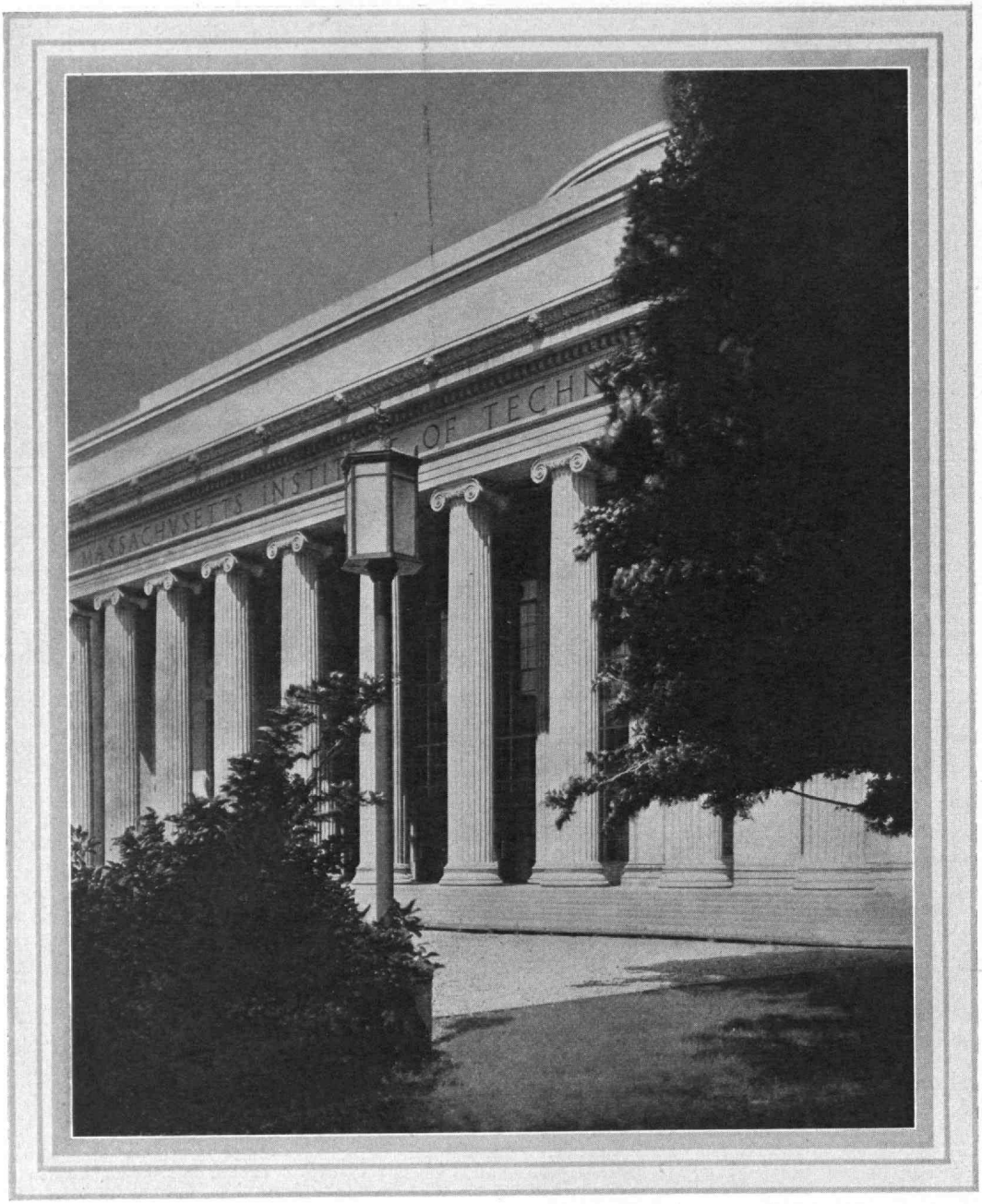

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The TECHNOLOGY REVIEW

Relating to the Massachusetts Institute of Technology

VOLUME XXX NUMBER 4

Contents for February, 1928

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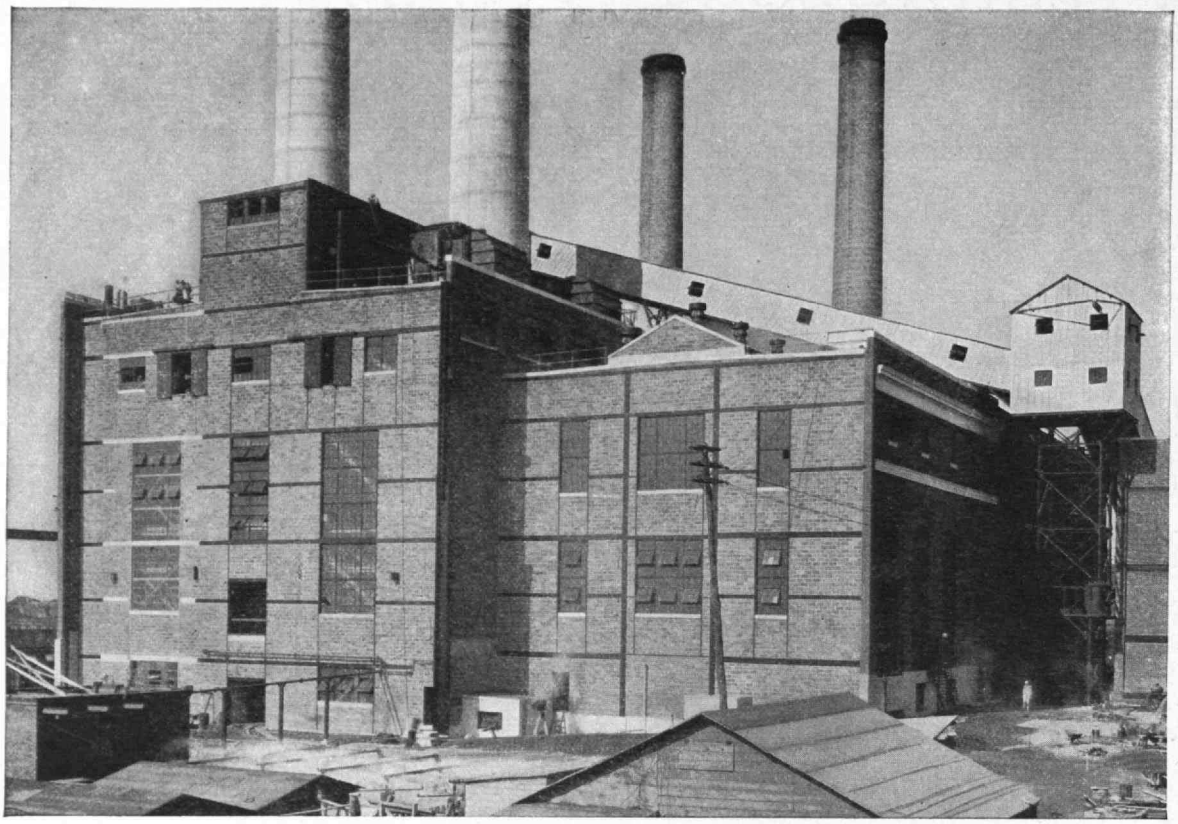
In THE REVIEW *for March*

¶ Last summer, SETH K. HUMPHREY, '98, braved tsetse flies and old maids on a trip through Africa, and emerged unbitten by either. He contributes an article describing a few of his experiences, written in the breezy manner he used in his recent book, "Loafing Through the Pacific."

¶ Several other articles are mellowing in the archives. One, or perhaps two, of the most likely ones will be fetched out to add to the gaiety and learning of nations.

¶ Besides the usual departments, there will appear a new column, "The Tabular View," intended to give a back-stage glimpse of the editorial sanctum; to give a better understanding of The Review, its policies, and, if possible, its Editors and contributors.



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The TECHNOLOGY REVIEW

VOLUME 30 · FEBRUARY, 1928 · NUMBER 4

The Trend of Affairs

ORVILLE B. DENISON, '11, from 1923–24 Executive Secretary, and since 1924 Secretary-Treasurer of the Alumni Association, has submitted his resignation to take effect June 30. His departure at that time will bring to a close the work of the Association's first full-time Secretary — an office combining the activities of the former part-time Secretary, the field manager, and the much discussed traveling Secretary. Mr. Denison's appointment came in response to the demands created by the ever-growing and more active Association. During his incumbency of office he has made many visits to different alumni groups all over the country and the Association membership has climbed from 4,900 to the present total of 6,534. In his work as Secretary he has made efficacious use of his natural enthusiasm, his contagious affability, and his excellent memory for people. His gusto and ability to entertain have made him an effective liaison officer and a genuine favorite within and without the Institute. The many Alumni throughout the land who have come to know Mr. Denison will join The Review, we are sure, in wishing him a full measure of success in the new enterprises he may undertake in the future.

Since the formation of the Association in 1875 there have been ten Secretaries who have carried the burden of its operation, all on a part-time basis save the last. Of this dynasty, the two who by all odds served the longest were Charles R. Cross, '70, in office 1876–1884, and Walter Humphreys, '97, in office 1907–1923. Other Secretaries were George F. Swain, '77, 1884–1888; Frederick W. Clark, '80, 1888–1890; C. Frank Allen, '72, 1890–1892; Harry W. Tyler, '84, 1892–1897; Augustus H. Gill, '84, 1897–1899; Edward F. Miller, '86, 1900–1901; Arthur G. Robbins, '86, 1902–1906. Since the small meeting in 1875, sponsored by the Class of 1873, when it was founded (there being then about ninety Institute graduates), the Association has grown to be an important and integral part of the Institute, requiring a large organization for its operation. Though the Secretary's duties are manifold, he no longer must count dirty one dollar bills sent in for dues as Professor Miller avers that he did when in office.

The announcement of Mr. Denison's resignation came shortly after his departure on a trip to local clubs and associations as follows: January 25, Richmond, Va.; January 27–29, Jacksonville, Fla.; January 30–31, Atlanta, Ga. His February dates are: 1–2, Birmingham, Ala.; 3–4, New Orleans, La.; 5–6, Houston, Texas; 7–9, Dallas, Texas; 10–12, St. Louis, Mo.; 13–14, Nashville, Tenn.; 14–15, Louisville, Ky.; 16, Indianapolis, Ind.; 17–19, Cincinnati, Ohio; 21–22, Columbus, Ohio; 23, Cleveland, Ohio; 24, Buffalo, N. Y.; 25, Rochester, N. Y.

RESIGNED

Orville B. Denison, '11, who terminates his services as Secretary-Treasurer of the Alumni Association on June 30

No. 17 Gramercy Park

INEXORABLE shiftings of New York's center of gravity and the passing of a notable club district are reflected in the announcement that the Technology Club of New York will not renew, on May 1, its lease on the old Gerard mansion at 17 Gramercy Park. Rather than sign a lease for five more years, the Board of Governors has unanimously agreed to change to an uptown building, preferably to one in the Grand Central Terminal Zone.

The present location dates back to 1909 when the old Technology Club, inadequately housed and struggling for existence, concluded that its future depended upon the acquisition of better and larger facilities. Accordingly the Board of Governors leased the Gerard property upon its being given up by

JOINT MEETING

On January 4 the Corporation and leading members of the Faculty lunched and convened in Walker Memorial

William Randolph Hearst's Independence League Club.

The house was situated between the Players' and, what was then, the Columbia University Clubs. Obviously it was the club era at Gramercy Park; organizations of variegated types found this unique "bit of aristocratic London" an urbane and convenient environment. Shadows of notable people, once residents in the Park, lurked on the exclusive green, always inaccessible to any but owners of adjoining lots who held the keys to its padlocked gates. An enterprising realtor and man of vision, Samuel Ruggles, wishing to develop the square, in 1845 donated the plot to these lot owners and it has remained theirs despite all attempts of the city to acquire it. Edwin Booth, Peter Cooper, Samuel J. Tilden, Stanford White once held keys. The Players' Club took over Booth's residence; the National Arts Club, Tilden's; the Princeton Club, White's gilded palace.

And now the suction of uptown New York is gradually bringing the club era to an end. The Princeton and Columbia Clubs have already relocated and soon the Technology Club departs for a district less aristocratic and romantic than Gramercy Park but more convenient, businesslike and fashionable. The Terminal Zone is, in the words of Thomas C. Desmond, '09, President of the Club, "the district in which most other important New York college clubs are located," and "where there are more Technology men . . . than in any other district of like size in the country. . . . Let me simply point out that the decision of the Board of Governors regarding this was unanimous and confirmed unanimously by vote of the Technology Club after a long and full discussion participated in by many of the most active Technology men. Many questions have come to me recently as to how this move of the Technology Club uptown will affect the National Technology Center, to all of which questions I have replied that this move will undoubtedly help forward the National Technology Center . . . at least three years and possibly five years off from practical realization." So further shiftings are to come.

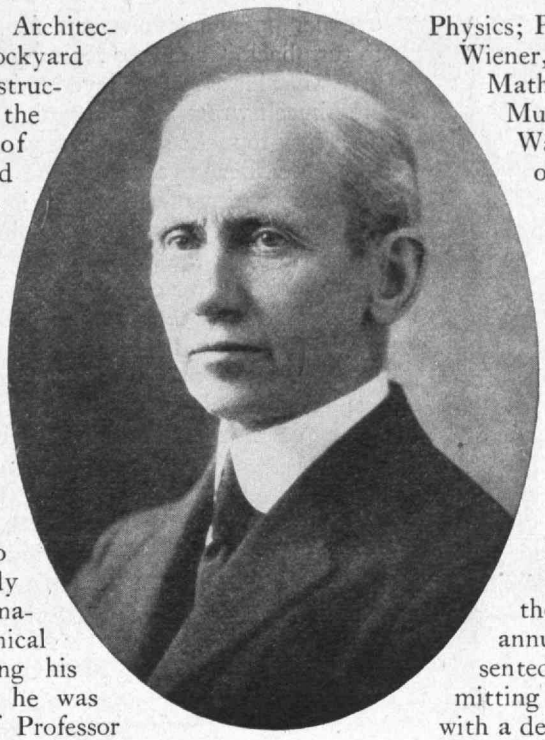
ARTHUR A. NOYES, '86

With George E. Hale, '90, (on the right). See opposite page

Knight of Dennebroge

FURTHER recognition of his distinguished service and far-reaching contributions to naval architecture has come to William Hovgaard, Professor of Naval Design and Construction in the Department of Naval Architecture and Marine Engineering, by an order in which King Christian X of Denmark conferred upon him the rank of Knight Commander of Dennebroge. Some twenty-five years ago he was created a Knight of Dennebroge, and the highest degree of this order, awarded for distinguished service, now comes coincidentally with his seventieth birthday. It was formally bestowed at a dinner of the Danish Officers Club in New York and was presented in the name of the King of Denmark by Consul General George Beck. Professor Hovgaard was graduated from the Naval Academy at Copenhagen in 1879. He served in the Danish Navy and, in 1882, he was a member of the astronomical expedition which was sent to the West Indies to observe the passage of the planet Venus. A year later he entered

the School of Naval Architecture of the Royal Dockyard at Copenhagen as instructor in technology at the Dockyard School of Naval Architects and Engineers. The following year he was appointed yard manager at the famous shipyard of Burweister and Wain in Copenhagen. In 1898 he was promoted to the rank of Commander in the Danish Navy. In 1901 Professor Hovgaard was sent to this country to study the question of submarines and other technical matters and following his return to Denmark he was offered the Chair of Professor of Naval Design and Construction at the Institute. Thus began an association which has continued for over a quarter of a century and by which he now finds himself the third ranking member of the Faculty, being junior only to Davis R. Dewey and Harry W. Tyler, '84.



WILLIAM HOVGAARD
Made Knight Commander of Dennebroge by the King of Denmark

Professor Hovgaard was called as an expert witness at the inquiries into the *Titanic* disaster and the torpedoing of the *Lusitania*. He was on duty in the Bureau of Construction and Repair in the Navy Department at Washington in 1917 and 1918 and later was a consulting expert for the Navy. He was technical adviser to the court which investigated the loss of the U. S. S. *Shenandoah*.

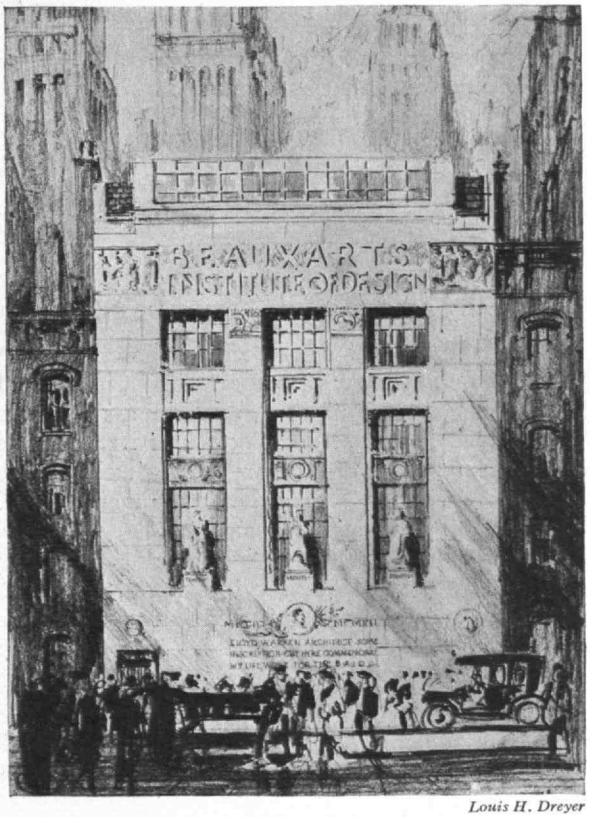
Professor Hovgaard is well known for his work in the interest of the American Scandinavian Foundation of which he was one of the founders and of which he has been a trustee since 1912. He was elected Vice-President of the Foundation last year.

Meetings Galore

CHOOSING the general academic vacation period between Christmas and New Years, many of the nation's professional scientific societies held meetings. Most important of these was the ubiquitous one held in Nashville, Tenn., at which Arthur A. Noyes, '86, presided. There the fifteen sections of the American Association for the Advancement of Science and thirty-five affiliated societies held forth with a six-day series of discussions on the sciences from agronomy to zoölogy. Many Technology Alumni and members of the instructing staff participated, either as officers or as authors of papers. Among these were Gerhard Dietrichson of the Department of Chemistry; Robert B. Sosman, '04; Edwin B. Wilson, formerly Head of the Department of Physics; Professor Philip Franklin, Professor Norbert Wiener, and Dirk Jan Struik of the Department of Mathematics; Thorndike Saville, '17; Robert S. Mulliken, '17; Albert Sauveur, '89; Professor Waldemar Lindgren, Head of the Department of Geology; and Frank B. Jewett, '03. Several other organizations held concurrent meetings in other cities. The Race Betterment Conference met at Battle Creek, Mich., and heard, among others, a paper by Professor John W. M. Bunker of the Department of Biology and Public Health; the Society of American Bacteriologists met in Rochester, N. Y., hearing papers by C.-E. A. Winslow, '98; Max Levine, '12; Edwin J. Cameron, '18; and David L. Belding, a special lecturer in the Department of Biology and Public Health. Professor Samuel C. Prescott, '94, Head of the Department, attended.

In New York, during the week of January 9, the Institute of Radio Engineers met for its annual conclave. Richard H. Ranger, '11, presented a paper describing his method of transmitting photographs by radio and accompanied it with a demonstration similar to the M. I. T. Radio-Newspaper which he showed to the convention of the Technology Clubs Associated last June.

Meeting in Cleveland, Ohio, the Geological Society of America heard papers by three members of the Institute's Department of Geology: Professors Lindgren, Joseph L. Gillson, '21, and Frederick K. Morris.



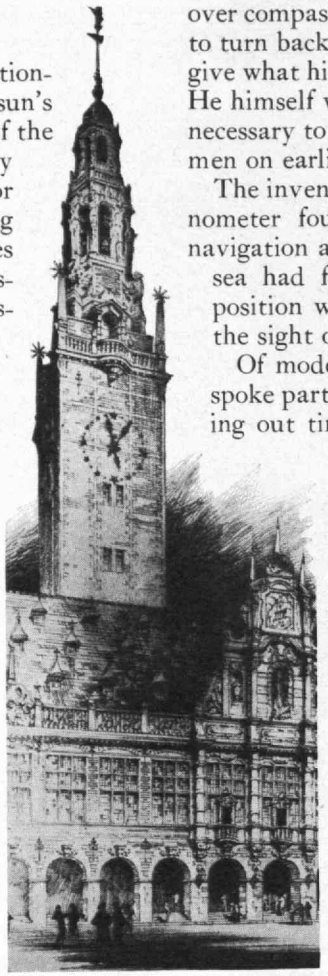
Louis H. Dreyer

WINNING DESIGN
By Frederic C. Hirons, '03, for the new building of the Society of Beaux Arts Architects in New York

Achievements Recognized

CHARLES G. ABBOT, '94, internationally famous for his studies of the sun's activity,* was appointed Secretary of the Smithsonian Institution at Washington by the Board of Regents on January 10. For years he was Assistant Secretary, becoming Acting Secretary upon the death of Charles D. Walcott, last February. Dr. Abbot assumes executive responsibility for the destinies of this important organization at a critical period. Its field of activity has broadened considerably in recent years, and, two days after Secretary Walcott's death, the group known as the Establishment of the Smithsonian Institution met to decide whether the work should be curtailed or the endowment increased. Undoubtedly the Smithsonian Institution that contributed so much to knowledge under the guidance of Joseph Henry, Spencer F. Baird, Samuel P. Langley and Charles D. Walcott will "go strongly on" under Secretary Abbot.

The 1926 Edison Medal Committee of the American Institute of Electrical Engineers made its award to William D. Coolidge, '96, ". . . for the origination of ductile tungsten and the fundamental improvement of the x-ray tube." Almost simultaneously with this award to Dr. Coolidge came another from the Federal Courts which pronounced invalid his ductile tungsten patent. Dr. Coolidge refused the medal, and the Committee reluctantly acquiesced. The 1927 Committee, meeting last December, awarded the medal to Dr. Coolidge a second time, "for his contributions to the incandescent electric lighting and the x-ray arts." This time he accepted it.



LOUVAIN MEMORIAL
To U. S. Engineer War Dead proposed by E. D. Adams, '69

From Cross-Staff to Gyro-Compass

METHODS of navigation, from the crude cross-staff and simple compass used by Columbus to the sextant and the gyro-compass of today were described in the second Society of Arts Popular Science Lecture, given on January 13, 14, 15 by Professor George L. Hosmer, '97, of the Department of Civil and Sanitary Engineering.

Discussing "The Art of Navigation as Affected by Modern Inventions," Professor Hosmer drew a comparison which showed that instruments of navigation carried by the smallest fishing vessel of today are far in advance of the apparatus at the disposal of Columbus.

Incidentally, getting financial support for his adventure was not the only problem of Columbus' voyage to America. It appears that his sailors grew alarmed over compass variations from the true north and wanted to turn back. Columbus rearranged the compass card to give what his sailors believed to be a true north reading. He himself wrote in his chronicles that he had found it necessary to make such a change to calm the fears of his men on earlier voyages.

The invention of the sextant in 1731 and of the chronometer four years later revolutionized methods of navigation and the hardy souls who ventured upon the sea had fairly accurate methods of knowing their position when they pushed over the horizon beyond the sight of land.

Of modern navigation methods, Professor Hosmer spoke particularly on the importance of radio in sending out time-signals, compass bearings, and data to guide ships through fog. He spoke, too, of submarine signal devices, depth finders, and of the Sperry gyro-compass, all of which are used in modern navigation.

"Aviation in 1927"

COMMERCIAL aviation's worries are being rapidly dissipated and the status and strength of the airplane industry in the United States will be definitely assured a few years hence. "Certainly in another two years, at most, the commercial production will far outweigh the military market in number of units built, if not in total value of the product," writes Edward P. Warner, '17, Assistant Secretary of the Navy for Aëronautics in *The Yale Review* for January as part of an article entitled "Aviation in 1927."

He foresees the time when aircraft purchases by the Army and Navy will, instead of dominating the field, "be insufficient to disturb the equilibrium of the whole structure." In 1926 there were purchased for private flying and commercial use 600 or so planes; in 1927 Professor Warner estimates that this number was probably increased to 2,000. With the opening of new airports and airways becoming more common from month to month, the utility of the airplane for non-military flying will inevitably be expanded, for airplanes are as susceptible to the influence of their special forms of improved highways and service stations as are automobiles.

The article, of course, discusses the significance of the trans-oceanic flights of last summer. While "wholeheartedly applauding those who triumph over obstacles in the interest of science or in the spirit of the explorer, we should not delude ourselves into any supposition that the future of aviation in any sense waits upon the time when a great number of pilots shall have gone and done likewise."

Instead we should seek to develop that knowledge of the airplane's possibilities which is already at hand for "the airplane stands now as a vehicle of comparatively short range. The principles of its design inherently adapt it for short distance operation, and while the range is lengthened from time to time by progress in the engi-

* Dr. Abbot's article "Investigating the Sun" in The Review last month describes this work. His article, "A Life of Research," appeared in The Review for February, 1927.

neering art, it continues to be true that the commercial and military possibilities . . . are most pronounced at two, four, or possibly six or eight hundred miles."

Course I-A

JUST as the Review goes to press, comes confirmation of the creation of a new Course, a five-year coöperative Course in railroad operation which has been under advisement for nearly a year. Representatives of the Institute and of the Boston and Maine Railroad, on Wednesday, January 19, met at a dinner given by President Stratton and completed the final details of a plan, similar to that now in effect in the Department of Electrical Engineering, which will enable the Institute in conjunction with the coöperating railroad to give practical and scientific training in modern transportation leading to a Master of Science Degree.

Said Dr. Stratton in announcing the completed plan: "Creation of this Course in railroad operation is another indication of the aggressive progress and the efforts being made to increase efficiency in railroad transportation. Fundamental training in the principles of modern science as taught at Technology, and experience in railroad operating practice have been accomplished for the first time as an educational unit through coöperation between the Boston and Maine Railroad and the Institute. In this age of competition and economy, efficiency is the formula of transportation success. Here lies a field rich in opportunities for young men trained in science and operating practice."

The work will be under the supervision of the Department of Civil and Sanitary Engineering and the present outline provides that emphasis be placed on instruction in the extension, improvement, and operation of existing lines, rather than construction of new lines. Much time will be given to the study of passenger and freight traffic, steam locomotive practice, auxiliary means of transportation and traffic problems. Instruction in science and experience in operation will be varied to assure efficient application of technical training in practice.

The Course will include the fundamental subjects of civil and electrical engineering necessary to an understanding of bridge building, earth works, hydrographic undertakings, and electrical equipment, including signals, communicating systems, and train lighting as well as the characteristics of terminal and trunk line electrification.

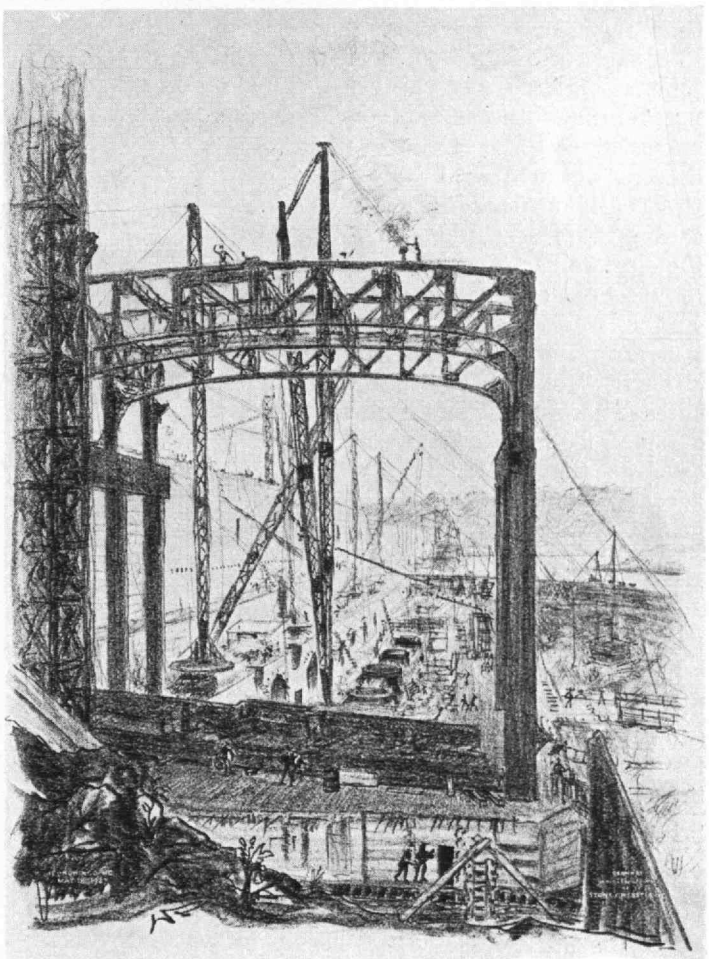
Alternate periods in railroad employment and at the Institute are set up at the end of the second year of undergraduate work at the Institute. Thereafter, the students alternate in employment with the railroad for periods of seventeen weeks and in academic work at the Institute.

Technology Etchers: Samuel Chamberlain, '18

IF the etching on the cover of this issue is new to the readers of The Review, certainly its etcher is not. Prior to the present Volume XXX, he executed pencil sketches of Institute buildings for the covers of two volumes, sixteen issues in all, that attracted notice and comment wherever The Review appeared. As author or illustrator, he has graced the inside pages of The Review at least a dozen different times.

Samuel Chamberlain was born on October 28, 1895, at Cresco, Iowa. For two years at the University of Washington he studied architecture, and in 1915 came to the Institute to continue this work. With the advent of war, architecture gave way to soldiering, and he spent a year in France. Then followed another year at Technology, and then a period of free-lancing as a commercial artist. He actively took up lithography in 1923, and at Paris in 1924 published his "Vingt Lithographies du Vieux Paris." In 1925 he progressed to etching and in November of the past year his work was exhibited in a Boston gallery. He is now in England studying etching processes as holder of a Guggenheim Fellowship.

"A Side Street in Beauvais", the cover etching, is dated 1925, and it is one of the group that won honorable mention at the Paris Salon in 1925. Complete data on all his work is given in an excellent monograph published by Charles E. Goodspeed and Company, by whose courtesy "A Side Street in Beauvais" was lent for reproduction. The monograph lists forty-seven etchings and seventeen lithographs.



Stone and Webster Journal

THE CONOWINGO DAM

A construction scene on the great dam across the Susquehanna. From a lithograph by James C. Flaherty, '17

The Alumni Dinner—1928 Style

A veteran reporter again measures his cadences to fit an annual occasion, solemnly observed on the evening of January 7

By ROBERT E. ROGERS
Associate Professor of English

IN the first place it did not rain, hail or snow; Atlantic Avenue didn't overflow into Federal Street; the dam didn't burst. The sidewalks were dry and the stars were out. For the first time in five years the Annual Alumni and Alimentary Association met in fair weather.

Otherwise there wasn't, to the outward view, much change. The same crowd milling about for a hungry half hour in the spacious corridors and lounges of the Chamber of Commerce. The same slow surge toward the tables when the doors were opened, disclosing the massed beauty and femininity of Technology crowded at the the central tables right up close t'the harmony. The long line of wealth and grandeur entering, marshalled by Dennie, and edging its oblique and difficult way behind the head table, each magnate to his appointed stall. The sobbing, gurgling, crooning notes of the Wurlizer Organ operated by Mr. Frank Stevens, as the Mixed Fruit Cocktails appeared, according to specifications on the old familiar menu done in the dear old cardinal and gray. Yes, it was all very much the same.

Drawn by Henry B. Kane, '24

THE AUTHOR

Caught in the act of composing his annual opus on Alumni Sinners and related topics

There were, it is true, minor differences. The water glasses were apparently designed for high balls instead of water, save at the head tables which were adorned by the festive and cut-glass goblet. The rapid and agile waitresses . . . willing gals! . . . wore wine-red instead of last year's tan. There was no soloist. There was no Glee Club, getting a good free feed in return for a few inaudible songs. And Ike Litchfield's moustache was, strangely, missing. For the first time in years he displayed the upper lip of an actor or arch-deacon, strong, supple, expressive. As he explained it, using the favorite form of the Syllogism: "That moustache was the first moustache in the electrical engineering profession in America." Major premise: Technology was the first school in the United States to start a course in Triple E. Minor premise: Mr. Litchfield was a member of that first Class. Mr. Litchfield's moustache was the first moustache in that class. Conclusion: Hence the pyramids! Also . . . Mr. Litchfield's Class had at the time presented him with a moustache cup. Now, alas! (apparently) the cup is empty, the pitcher is broken at the fountain. No moustache cup, no moustache! We trust we have explained this important matter to the satisfaction of Mr. Litchfield's and The Review's many friends. Alumni not satisfied may communicate with Orville B. Denison, '11, Secretary of the Alumni Association, and much good may it do them!

We are forgetting the honored guests languishing at the head table while the Wurlitzer plays and the fruit cup circulates and everybody looks at them and they straighten their ties, hoping the elastic hasn't come loose, and try to think of something to say to the party on the left. Reading from left to right and every one a speaking likeness — they are: Orville B. Denison, '11, committee chairman, standing on chairs and generally whooping it up, as, when, and if it occurs to him; Ralph T. Jope, '28, senior class President, who, like Bre'r Rabbit, ain't sayin' nuffin'; Professor Harry M. Goodwin, '90, Dean of Graduate Students; George M. Merryweather, '96, Vice-President of the Association; Francis R. Hart, '89, of the Corporation Executive Committee; Elisha Lee, '92, President of the Technology Clubs Associated; the Honorable Dwight F. Davis, Secretary of War, looking a good bit like the photographs of Governor Al Smith; Professor Samuel C. Prescott, '94, President of the Association (give the little man a hand!); Frank B. Jewett, '03, President of the Bell Telephone Laboratories, Inc.; The President of the Institute; Henry F. Bryant, '87, a Vice-President of the Association; Dr. Elihu Thomson, former Acting President of the Institute; Charles T. Main, '76, member of the Executive Committee of the Corporation; and at the end of the table, young Lieutenant Albert F. Hegenberger, '17, U. S. Air Corps, trans-Pacific flyer, and his classmate, Harold E. Lobdell, '17, Assistant Dean and Editor of The Review.

Fortunately there was something else omitted this year. There was no flash-light photograph. This particular dinner will have to go down to posterity without a record of the old boys and their guests gaping blindly at an explosion of whatever it is they explode in those bags and that billows all over the room like a cloudburst and makes everybody cough.

Dinner began pretty promptly at seven o'clock. At seven-fifteen all the ice water on my table was exhausted

and we suffered like the heroes of *Beau Geste* all the rest of the evening. The waitress did all she could. She fixed the foot of the table with cardboard so that it wouldn't tilt toward me at irregular intervals depositing my Roast Duckling in my lap. But she was no Moses. Or there was no rock to strike. Anyway, we thirsted. Otherwise she was an excellent waitress, No. 44.

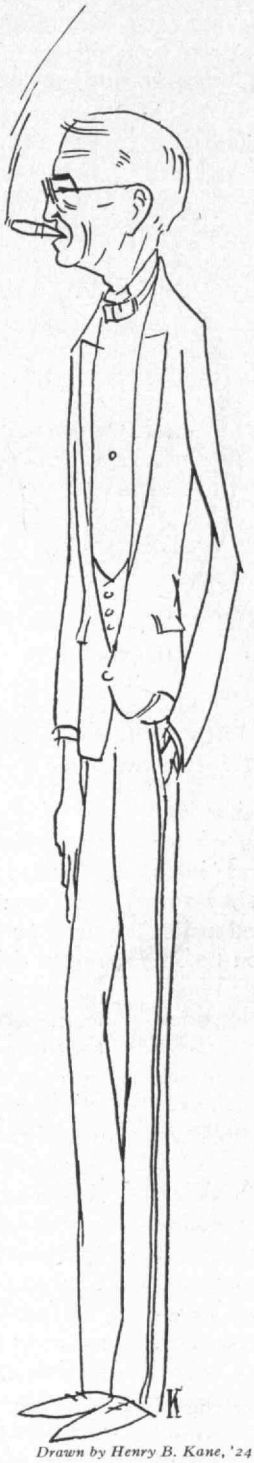
At seven-thirty a large policeman lounged in and leaned against the door and was immediately engaged in feverish conversation (whispered) by Mr. Denison, '11, and Mr. John E. Burchard, 2d, '23, the most visibly active member of the dinner committee. The rumor went around that the house was pinched. But nothing happened. Mr. Burchard, incidentally, who wore close-fitting black evening dress with carnations, was very graciously and effectively on the job throughout the evening, looking like one of these maitre d'hotels in an E. Phillips Oppenheim novel, who turn out at the climax to be a genuine Russian Grand Duke. Mr. Burchard is one of the two living Technology Alumni who can give that impression and almost get away with it. The other . . .

Another funny thing! The dinner got under way without a single solitary class cheer from a single solitary class. Not even 1917, that perennially raucous crowd, which had been practicing their cheers all afternoon at the E-g-n-r's Cl-b, was silent. Even Mr. Litchfield let the opportunity go by. Talk about Harvard indifference!

Half way through the dinner we sang "Take Me Back To Tech" accompanied on the organ. Now the organ is *not* suited for that particular tune. All an organ can do is to go "oompah-oompah-oompah" very staccato. As a result the singing was pretty faint and ragged, in spite of Dennie. There should have been at least an accordion.

Incidentally, why *don't* we have a band any more? A good strong brassy Kanrich band, with song leaflets, and everybody singing in close harmony, just like a Rotary Club. We used to have one in Walker and everybody was happier. A Wurlitzer is all right, I suppose — in church — but it hasn't any authority. Even the Glee Club would have been better!

By eight-twenty the dinner was over and people were fraternizing a little. By the way, the Faculty representation, particularly of those who are not Alumni, was larger than it has been for years, another tribute to the excellent administration of Brother Prescott. At eight-thirty the Class of 1925 gave a a short choked-up class yell, the only one during the whole dinner. Something will have to be done about this! At eight-thirty also the entertainment began with an interesting reel of movies, displaying life at the Institute. There were pictures of the old buildings and the new, portraits of the Presidents, and movies of present day activities. These are new, taken under the direction of Bursar Ford, and intended to be a kind of frame in which fresh and varied sequences may be inserted from time to time, as occasion arises. Although they were reeled off a bit too fast, they were very interesting.



Drawn by Henry B. Kane, '24
I. W. LITCHFIELD, '85
Minus his moustache, he led no cheers

As toastmaster, President Prescott of the Association departed a bit from the custom of former Presidents and said something. He was, he explained, only the third member of the Faculty to serve as President of the Alumni Association during its fifty or more years. The others were Robert H. Richards, '68, and Arthur A. Noyes, '86. He emphasized the necessity for the Alumni to consider themselves part of the Institute and to serve in their own way as well as if they were actively connected. In this connection Professor Prescott spoke particularly of the drive for the Alumni Dormitories, of which about forty per cent of the sum necessary for the first quadrangle has been secured. He urged those classes that cannot afford large sums to feel that even a staircase, or a wing, or a suite of rooms, or even a room is a not ignoble objective.

"Two classes have already gone over the top, Charles Hayden and the Class of 1901. You will note that I put Hayden in a class by himself. I think I may predict, and I say it with special pride, that the Class of '94 will be the next to bring its offering to Dr. Stratton's desk. We had hoped to do it here tonight. We also count on '88 and on '95 to approach the $100,000 mark.

"But perhaps the highest praise of all should be given to those men of the first ten classes, '68 to '77, classes now few in numbers but rich in appreciation and loyalty. From these classes, with a total number of survivors far less than half that of a single class in this decade, more than $25,000 has been contributed. All honor to the old boys! I hope their monument will have a designation worthy of their spirit."

The reception of President Prescott's speech showed that the Alumni are well aware of the fine record he has made, particularly in the past few years of his work for the Association. Following this, Dr. Stratton made his Annual Report on the State of the Nation, a concise summary of the most important things that had occurred within Technology during the past year. There were no important gifts of funds to report, but the report of progress on the Guggenheim Aëronautical Building and the Richard Homberg Memorial Infirmary was enthusiastically received. It was pleasant to note that Technology still has the largest registration of any engineering school in the United States. He stated that an examination of the records of 400 men taken at random from those who

entered the Institute by examination in the fall of 1923 revealed that seventy-five per cent already have graduated or may reasonably be expected to graduate. The corresponding average figure of thirty-eight other institutions is given by the Society for the Promotion of Engineering Education as forty per cent.

Dr. Stratton then paid tribute to the dead, particularly to the memory of Dean Henry P. Talbot, '85, who died last summer and whose presence was so sadly missed at the dinner, mingled with praise for the living, particularly for the officers of administration.

The next speaker, Dr. Frank B. Jewett, '03, was happily introduced as a former Instructor in Physics at the Institute and a former pupil of a certain Professor Stratton at the University of Chicago, the only man who ever used hailstones and catnip in making a mint julep. (At this moment, to point the jape, the Chamber of Commerce official Cat, a nice gray and white puss, strolled unconcernedly in front of the speakers' table and made her exit, l.u.e.)

Drawn by Henry B. Kane, '24
PRINCIPAL SPEAKER
The genial Secretary of War

Dr. Jewett, slender, graying and youthful, spoke on "Scientific Education: Do We Know What We Want and Can We Get It?" and answered the question to his own satisfaction before he was through. Perhaps the happiest moment of the evening came at the completion of Dr. Jewett's speech, when Dr. Prescott called upon young Lieutenant Hegenberger, '17, hero of the first successful non-stop air flight from the mainland to Hawaii. Young, very modest and unspoiled, he responded to the hearty cheers of the crowd, with a few simple words expressing his happiness to be attending his first alumni dinner since 1917 and his pleasure over Technology's progress in aëronautics. He added that he had left Dayton the afternoon before at half past one in the afternoon; he had visited Washington and New York and arrived in Boston by noon of Saturday, an earnest of what aviation might mean to the ambitious business man. As for the story of the Hawaiian flight, he added, the exclusive rights to that were controlled by The Review which had published his account in last November's number.

The last speaker of the evening, the Secretary of War, Dwight F. Davis, donor, while a college student, of the Davis Tennis Cup, was given a hearty reception. A Harvard man, with a distinct penchant for quoting Alexander Pope, a rather unlikely procedure at Technology dinners, Mr. Davis read a clear, vigorous and persuasive speech about the Army Engineer.

After paying tribute to the work Technology had done for the Army, particularly its engineering corps, he went on to stress the importance of army engineering in peace time as well as war. He gave brief but vivid descriptions of the work of the engineering units in active service in war time and followed it up with a sketch of their peace time activities, such as the work made necessary by the recent Mississippi floods and the part the army engineers must play in future flood control. His speech on the whole was a strong plea not to allow the peace time engineering work of the country to be taken from the War Department and turned over to a civilian bureau. The War Department by its efficiency and economy had justified its work.

"As a just people we may be proud of the Army and Navy so employed. As Secretary of War it is my constant endeavor to assure an army imbued with such ideals of service and prepared successfully to perform such duties. Tonight I am going to stress the engineer phase of the National Defense. Do you realize the important part played by the Engineer Corps in our national defense? And do you also realize how essential to their military efficiency and preparedness is the training afforded by civil activities, such as river and harbor improvement, building and dam construction, road and transportation activities? Those advocating, however sincerely, the virtual separation of the Army Engineers from the War Department or the turning over to civil engineers of those public works which have been executed so efficiently, honestly and economically by the Army Engineers for over a century, strike a blow not only at the pocketbook of the tax-payer, but what is even more serious, they undermine one of the strong arms of our national defense. In my opinion a separate Department of Public Works would not only be wrong from the standpoint of modern business organization, but would be uneconomical in operation, inefficient in results and decidedly harmful to the interests of our national defense.

"Varied experience is an essential qualification of the military engineer. Military engineering is applied common sense employed under emergency conditions. Common sense is intuition backed by experience. Peacetime acquisition of varied engineering experience is not a drill ground possibility. The present system of alternating civil engineering responsibilities and opportunities with military training and contact assures that our military engineers will be both efficient engineers and competent soldiers in time of war.

"Our Engineer Corps is small in number but the quality of the personnel is maintained on the highest plane. Honor graduates of the United States Military Academy and high-standing graduates of engineering institutions, such as Massachusetts Institute of Technology, constitute the major portion of its personnel. The Corps of Engineers welcomes you qualified graduates."

After Secretary Davis had finished, there was a brief showing of more Technology Movies, this time of the acitivities of the Beavers, the undergraduates, a rather amusing and informative series. Then with the usual singing of the Stein Song the dinner was adjourned.

The Committee in charge of the dinner made some innovations. They are to be commended. Whether they made innovations enough is debatable. It was, we think, a little more human than it was last year. But there is still a bit too much longitude and not quite enough latitude. *Verb. sap.* The committee, by the way, consisted of Messrs. Denison, '11, Moreland, '07, Glidden, '93, Holden, '24, and Burchard, '23, all well and favorably known to the Alumni Association.

Touring Venezuela in a Model T

An account of a geological expedition just north of the Equator

By WILLIAM F. JONES, '09, and WALTER L. WHITEHEAD, '13

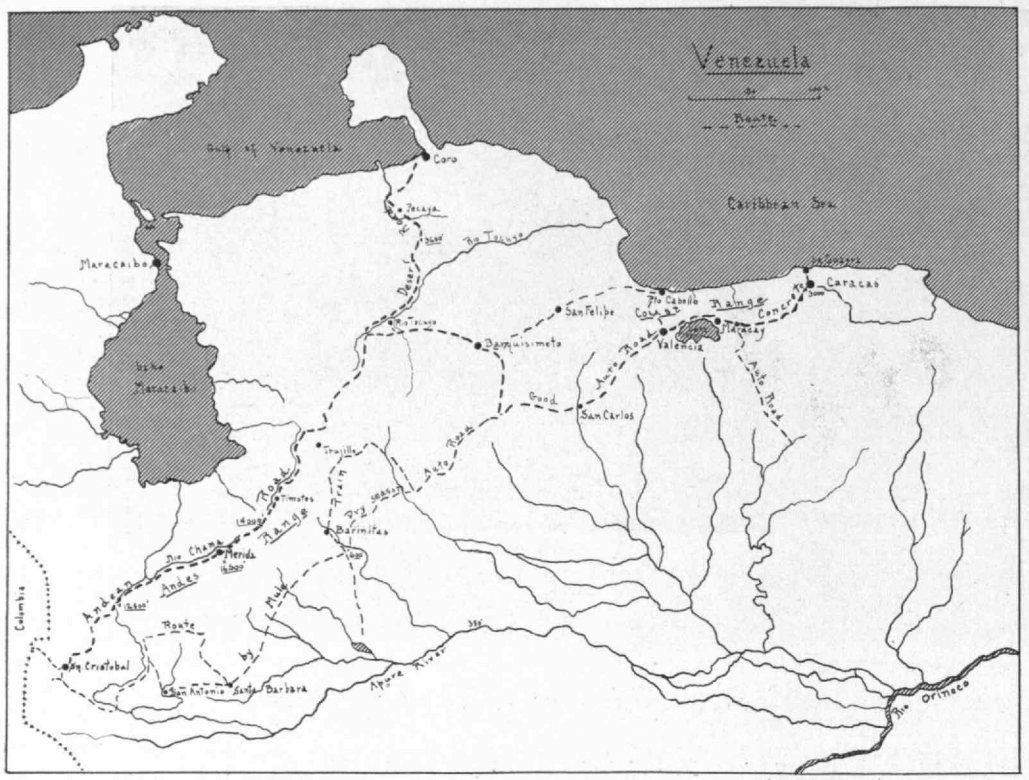
VENEZUELA popularly signifies oil and hot, moist tropical lowlands. Petroleum, it is true, from the region of Maracaibo, is being produced at the rate of sixty million barrels per year, so the country now ranks third in the world production. It is likewise true that the tepid and sticky atmospheric qualities of its steaming plains will stand comparison favorably or unfavorably, according to one's point of view, with those of any other coastal plain on the globe. But taken as a whole, Venezuela is a country of contrast and sudden changes. Its rugged, bare mountain peaks are crowned with perpetual snow and ice although their summits rise eight degrees from the equator; at their feet are mesquite and cactus-covered deserts as well as areas of luxuriant vegetation, sheltering monkeys, tigers and chattering macaws; vast grass-covered plains spread from mountain valleys rivaling Alpine gorges. To men accustomed to write the cold language of technical reports, it is indeed a pleasure to attempt the more impressionistic and charming phrases permissible in the description of a region as beautiful and varied as Venezuela.

HIGHWAY MARKER
"Live Gomez and on your way"

We arrived at La Guayra with seventeen pieces of baggage including two huge crates of camping equipment. Our arrival had been prepared for and the customs official instructed to let us in without inspection. In order to hide from the less favored the fact that we were eased through, our stuff had to at least go into the custom house and out again, so the huge crates, borne on the shoulders of six men, were negotiated with difficulty through the doorway and backed out again without being set down. This performance only served, of course, to call everyone's attention to the favors being shown us.

We proceeded to Caracas, the capital city, fifteen miles from the sea and at an altitude of 3,000 feet, which occupies a valley surrounded by towering mountains. Here are coffee plantations, bordered by palms and shaded by wide spreading saman trees. One reaches Caracas from the port of La Guayra over a concrete highway which winds upward on the side of the coastal range of mountains. From this road one can look directly out on the blue Caribbean Sea from a height of nearly a mile above it. The distant horizon merges with the sky and the sea seems like a curtain on which are painted

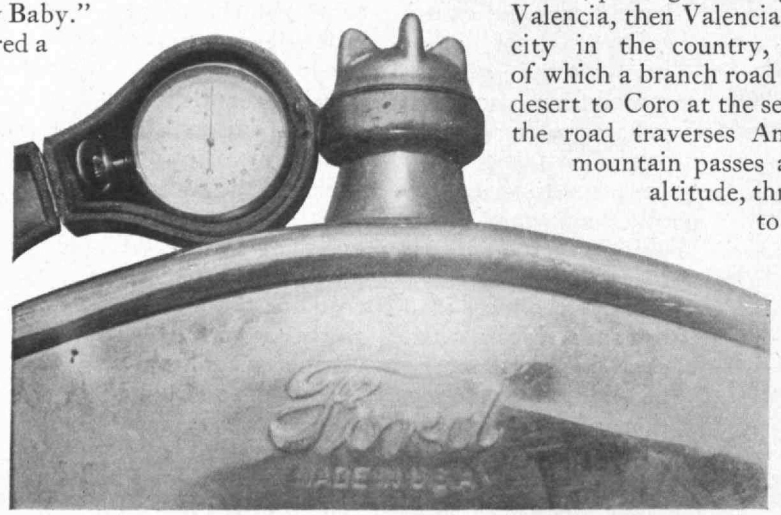
VENEZUELAN FERRY
The party crosses a river



miniature ships. This "little Paris" of South America is the birthplace of the great liberator, Simon Bolivar. We doubt if there is a town in Venezuela that has not either an avenue or a plaza named for him, and there is always a statue. Bolivar's portrait is on nearly every postage stamp ever issued in Venezuela and the standard unit of coinage of the country is the Bolivar. From Caracas, and inspired by this man of small stature but of indomitable courage, spread the first flame of independence over Spanish South America.

It was here that we assembled our party and our equipment during the spare moments between the excellent meals of a restaurant called "El Calvario," or the usual afternoon "tea" at "La India" where an orchestra played chiefly "Valencia" and "Yes, Sir, She's My Baby." With difficulty we secured a car mechanic, José (last name forgotten), the tireless tire changer who used up forty-four tubes in 5,000 miles; and Silvestre the cook, who had risen to this position from that of a smuggler on the Caribbean isles. Guillermo Zuloaga, '27, born and raised in Caracas, provided the many necessary introductions and acted as guide in a city where the street crossings are named rather than the streets and the numbers run from crossing to crossing. William B. Millar, '26, having had much and varied experience with Fords, attended to spare parts, food lists, and the securing of a driver's license, a document he highly prizes because it required a lawyer and the visas of at least six high officials. It looks like an international treaty. Our part consisted of studying maps, securing scientific data and cashing drafts. With all our impedimenta assembled we sought out the concrete highway extending to Maracay which passed out through the modern suburb of Paraiso and through the gates of the city. Here the casual traveler is examined by the police and if approved is permitted to proceed onward to similar examinations at all villages and towns. This procedure is surprising to strangers but is well-reasoned. It is the hand of authority, felt everywhere in Venezuelan life, for Venezuela presents the anomaly of a South American country without revolutions. The President, Juan Vicenti Gomez, is a dictator who, for eighteen years, has governed the country, stabilized finance and developed industry and agriculture, and recently he has begun Venezuela's remarkable program of road building.

And so we were on our way. Good roads are now completed from Caracas westward to the Colombian border, passing Maracay on the beautiful lake of Valencia, then Valencia itself, the second largest city in the country, and Barquisimeto, out of which a branch road is being built across the desert to Coro at the sea. Beyond Barquisimeto the road traverses Andean valleys and high mountain passes at 12,000 to 14,000 feet altitude, through the city of Merida, to end near the town of San Cristobal at the recently constructed international bridge near Cucuta in Colombia. A branch also leads from Maracay southward and indefinitely crosses the level *llanos* to Ciudad Bolivar on the Orinoco River. Poorer roads still follow



PRIMA FACIE EVIDENCE
The barometer registers fourteen thousand feet

westward the foothills south of the Andes to Barinitas.

Outside the main finished Andean highway, road maps are scarce and information, when it is obtainable, is scanty and misleading. Venturing from the security of the main highway is indeed an adventure as we subsequently learned. However, one intrepid individual told us he had seen a bridge on the road to the north coast built over the Rio Tocuyo and as our way led across this river we accepted his advice at face value and proceeded by block and tackle, shovel, Ford, and man power, through saturated shale and sand to the Rio Tocuyo at the town of the same name. On arrival the Mayor, Colonel Virgillio Matute, informed us that the bridge was only a proposed one, cheerful intelligence especially since he added that the river was in flood. So, as we had come, we returned and subsequently found a bridge well up the river. Two days later we hailed His Honor the Mayor of Tocuyo from the opposite bank of his bridgeless river front. He traversed the swirling, muddy stream in a dugout and climbed the steep bank of liquid mud to be greeted immediately with an urgent demand for Ford tires. The Colonel had none, furthermore never had had any. He did, however, telegraph sixty miles for a man to ride on a mule all night with the familiar 30 x 3½'s, while we camped by the roadside eager to attack the desert on the morrow.

This way across the hilly desert was more a figment of some map-maker's imagination than the actual reality of a road builder. It consisted of innumerable detached stretches of road — it must have been built by the quantum theory — separated by drainage bottoms which were filled with finely ground rock. They were dry one day and the consistency of mush the next with intermittent periods of turbulent flood. Whenever the road met a real river — of which there were several — the bridge had been thoughtfully omitted. Crossing this country, as we did, in the rainy season proved to be a tedious process and an impossible undertaking without blocks and tackle. Our two Fords, rest their souls, often sank comfortably down and floated in thick mud, their running boards serving as sponson-like appendages to help avoid an upset. Successfully passing the mud they were pushed by natives of the region across rivers four and five feet deep.

SIESTA

Thus they waited all day to get across the Mitare River. The feet are the property of William F. Jones, '09; in the driver's seat is William B. Millar, '26; in the rear, Walter L. Whitehead, '13

To wait in a hot tropical desert on a river bank nine hours for the river to get low enough to cross, with black flies and mosquitoes as companions and with no shade, is an experience which becomes humerous only in retrospect. At the time it was plain Hell on wheels.

Not many miles from this comfortable halting-place in the flooded desert lies Pecaya, an oasis in the wilderness. Here in a region devoted to goat-culture, even the demand for tires was met with calm acquiescence and we were offered cooling drinks in the well ordered, shady patio of a little inn. Dinner of strange Venezuelan dishes and ruby liquid from France was followed by repose in multi-colored hammocks swung in a room extraordinarily decorated with cut paper pendants and with walls honored by large portraits of the King and Queen of England! Pecaya was, and still is, a place of pleasant memories, a gleaming white spot smong brown hills, a mile-stone on the desert road from the mountains down to the sea.

AT BISCUCUY

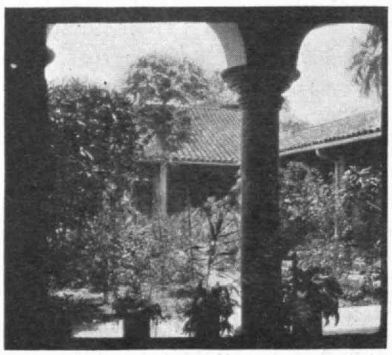
Walter L. Whitehead, '13, and Guillermo Zuloaga, '27, are entertained

Leaving the desert and its hypothetical discontinuous roads, we back-tracked to encounter a highway built with admirable skill on the heavy Andean grades. From Valera, 1,500 feet up, we followed a deep valley for sixty miles. Part way up this valley, the little village of Timotes was reached — one of those rare spots which,

PECAYA
An oasis in the desert

in a journey such as ours, stand out; for here we found a little inn, a very old house with its corridor leading from the street to the patio, its floors paved with pebbles and horses' teeth inlaid in patterns — a heritage from their colonial architects. Within, the patio was a veritable paradise of flowers, vines and cages containing brightly-plumaged song birds, and in a corner a beautiful little grotto shrine.

Beyond Timotes the El Gavilan Pass is reached at 14,000 feet altitude, giving an average road grade of about five per cent. The road may, however, be traveled in comfort by all but the driver of a Model T. From the pass the precipitous Chama Valley is descended. Here Mérida of the cold nights is located on a high terrace. The town is shadowed and sheltered by the highest snow and ice-clad peaks of Venezuela — the Sierra del Mérida.



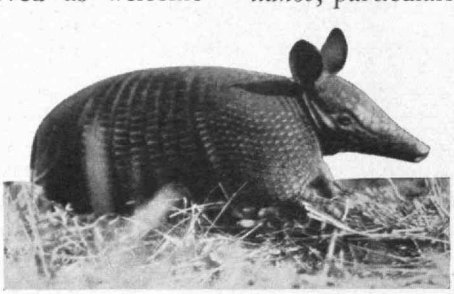
AT SAN CARLOS
The patio of the inn

Farther on, once more at 1,500 feet, another river valley leads the road into a new ascent towards the Andes. Far up this valley, on a smooth bench above the river we camped in corn fields. Cool nights, near clear water, with the rosy faces of sturdy peasant people looking over our camp, served as welcome contrast to the lowland heat. These upland people are appreciably different from those living under the heavy hand of the tropic lowlands. Vigorous, healthy, wide-awake, with flashing eyes and rosy cheeks, they till their fields of wheat and corn. The wheat is grown on the steep hillsides, so steep that it is difficult to see how the soil remains in place. Primitive methods are used: slow oxen drag pointed wooden plows and the grain is threshed by having animals walk round and round on it within circular stone walls.

Refreshed in the morning, we broke camp to climb the steep valley wall to the pass 6,000 feet above us. It was indeed a rare, never-to-be-forgotten experience, after having camped in one of these high mountain valleys, to drive up and up over a tortuous road with brilliant Andean flowers on either side making splashes of resplendent color, through the canopy of clouds and on above them, until from the vantage of a high pass we looked down into cloud-filled gorges of dizzy depths and out over the billowing sea of clouds which mantled the lowlands beyond. With the vaulted crystal-clear blue of the morning sky above we watched these clouds below whisp slowly upwards until the valleys cleared and in the distance, far down, could be seen white villages, their red tile roofs and church spires catching the morning sun. Indeed charming country!

ON THE LLANOS
A trail through the forests

South of the mountains and stretching away far southward to the Orinoco River lies the great *llanos* region, one of the largest areas of flat land in the world. To one standing in it the horizon is as level as the sea — unbroken by any perceptible rise of ground. If not too far away one may see the tops of the high mountains rising above the haze that clings to the lowland plain. Much of this area is grass covered in the wet season; all is bare and parched in the dry season. During the wettest times the rivers merge and one may cross miles and miles of the region by boat; in the dry season the same journey is possible by automobile. It is indeed a strange sight to see motor boats parked during the dry season miles from navigable water. Wild game, deer, pigs, and birds abound and in some of the rivers the dangerous electric eel is a menace to both man and beast when they attempt to ford these streams. Other large areas of the *llanos*, particularly in the west, are forested — tropical verdure of tall trees, some of them mahogany, with fantastic roots, dense undergrowth, long hanging vines, tree ferns, and orchids, and monkeys chattering in the tree tops.



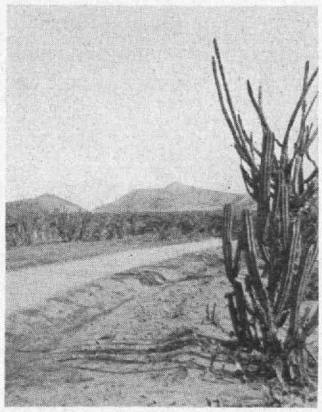
ARMADILLO
Escalloped in his own shell, he provides an edible meal

The towns of this vast area, once populous and prosperous, now contain but a meagre population living amid crumbling ruins along grass grown streets. Beside an adobe hovel we saw the imposing façade of a colonial mansion and

through the empty windows, traces of walls covered with vines and great halls now roofless and open to the blue sky. Through the arched doorway, above which still remains the stone carved crest of a great Spanish family, are trees growing in the tiled courtyards and a riot of tropical vegetation. The lethargy and fevers of the tropics have laid their blighting hand upon this region. It is hard to realize now that in the early struggles for independence it was from this region that the indefatigable Bolivar recruited the forces which followed him across great Andean mountains to victorious battles in far off Peru. It was here too that he formed his immortal cavalry brigade, mounted on 2,000 pure white horses. Today, however, horses are scarce and high-priced, and former great herds of cattle have dwindled from the ravages of disease.

SHRINE
It is curiously equipped

San Carlos, one of these half-deserted and crumbling towns, became a regular stopping place for us on our subsequent trips back and forth from Caracas to the West for there was a "hotel" in a really old colonial mansion with hand carved mahogany ceiling beams and delicately grilled windows. The proprietor, one Roderiguez, grandiloquently advertises his hotel as having "two stories, plenty of air, shower baths, typical culture, for ladies and gentlemen, and prices according to the client."



IN LARA
The road across the desert

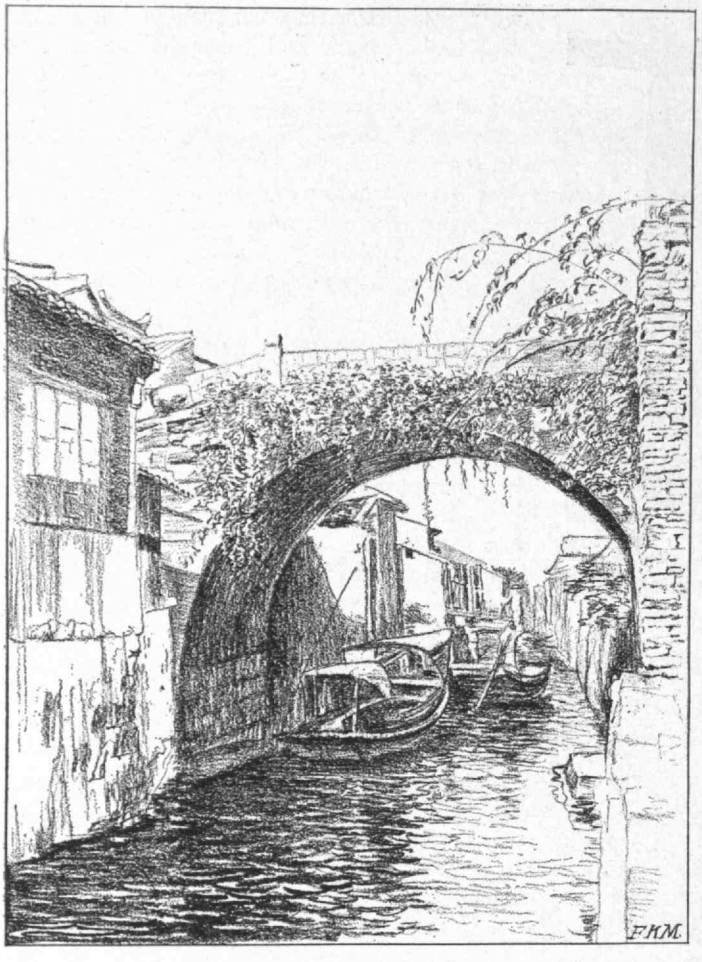
It was in Barinitas, a *llanos* town of the West, that we were casually standing on the sidewalk dressed in field clothes, observing a procession in honor of the new Governor of the State, when his aide approached us and invited us to join the cavalcade. We mingled with the following crowd but this was insufficient, so the parade was stopped and in the middle of the sun-bathed street we were presented formally to the Governor whose frock coat and high hat made an embarrassing contrast to our rough and unkempt appearance. We accompanied His Excellency to a reception, supposedly in his honor, but apparently also in ours, for we found ourselves called upon for speeches. Champagne was drunk by the Governor and ourselves; the others drank beer. That this was not empty form was proved the next day when the Governor put a hundred men to work repairing roads of importance to our further progress towards the west. In spite of His Excellency's aid, however, the automobiles had met the unconquerable wilderness and beyond Barinitas we proceeded with a caravan of horses and mules over plain and through forest on to San Antonio. The forest trail was difficult to negotiate as the previous Governor, due to his personal dislike of the Mayor of Santa Barbara, had let the telegraph line go without repair and our animals were continually getting entangled in the fallen wire. After further geologic work in that vicinity we wended our way back to Caracas on the sea.

Against the background of the scenes and places we encountered stand out vividly the varied peoples of Venezuela. From the dark skinned Indian to the gray-eyed blonde Spaniard, from the fever-ridden lowland races to the sturdy mountaineers, types seem to change completely with climate and origin. The audacious cowboy contrasts with the negroid workers of the hot sugar and cocoa plantations; and the coffee planter, clearing with immense labor the high mountain slopes for his new fields, today has little in common with the industrial worker of the city. Communications, however, between peoples separated by physiographic barriers, are being improved.

Modern ideas of the racial and political welding of a scattered people are being applied with the inevitable betterment of isolated communities. It is a commendable policy which will stand as a monument to one who, while dominating the country as dictator, has made an ineradicable impression on South American life — the military figure, all prevalent, overshadowing all in Venezuela — Juan Vincenti Gomez.

Back at Caracas we soon left Venezuela. Once more we viewed from the high La Guayra road the Caribbean curtain of blue with its painted ships. We collected our firearms which the customs officials had kept for us all the time we were guests within the country. We gave our pedigrees to the police for the last time and the mountainous shore of northern South America faded from view in the haze of a tropical sea.

CAMP LIFE
William B. Millar, '26 and Guillermo Zuloaga, '27 rest after the day's geology has been done



The Grand Canal at Suchow

The Biology of Racial Problems

An interpretation of the Chinese in comparison with other races

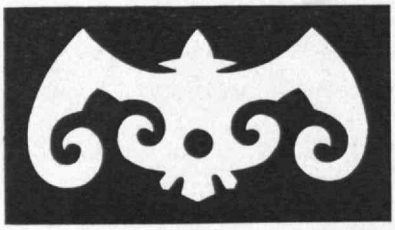
With drawings by the Author

By FREDERICK K. MORRIS

Assistant Professor of Geology

MY central thesis may be summed up in one sentence: *all race problems are biological problems*. It follows that if we reason about races in terms of theories that are biologically unsound, we shall reach incorrect conclusions; and our policies, so decided, must lead to failure. This principle is fundamental, and applies to all races in the world. In itself, it is not new at all; but most of us still reason and write in terms of a recently created human race — although we know, when anyone challenges us directly, that Mankind is old, and has existed for millions of years.

For instance, many people still believe that the skin pigmentation of the African Negroes was developed as an adaptation to the bright sun of the tropics. This reasoning is based upon the idea of rapid changes in racial characteristics. But the present homelands of the Negro tribes range eastward as far as Melanesia, and westward to Africa. Traces of early Negro immigration are found in India and Malaysia. There is no doubt that the Negroes are of Asiatic origin, like ourselves; and that they arrived by migration into the lands where they now live, displaying or absorbing earlier and more primitive human tribes. Long as they have lived in Africa, they had their racial characteristics when they went there; and their evolution is older by far than their sojourn in Africa or Melanesia. The dignity of longevity must rest almost equally upon our own pale race, upon the deeply pigmented Negro, and upon the races of intermediate color. From the known facts of racial distribution we learn first, that all present races are very old; and second, that all have migrated more or less widely — the winners of favorable homelands multiplying into far more numerous peoples than they were when they arrived, and so changing the tribal balance of the world. Practically all history is concerned with the new homelands. The most shadowy traditions only reach back to the great migrations. The period of racial evolution is longer by far, and lies in the still more remote past. The rate at which races may be expected to change is the rate of organic evolution — the slowest process with which we are here concerned. All the white man's contact with the tropics has not permanently darkened his skin; and the Eskimo's thousands of years in the sunless North have not bleached him.



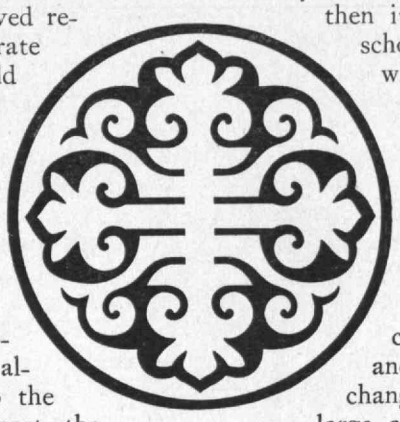
THE BAT

A Chinese religious symbol

I

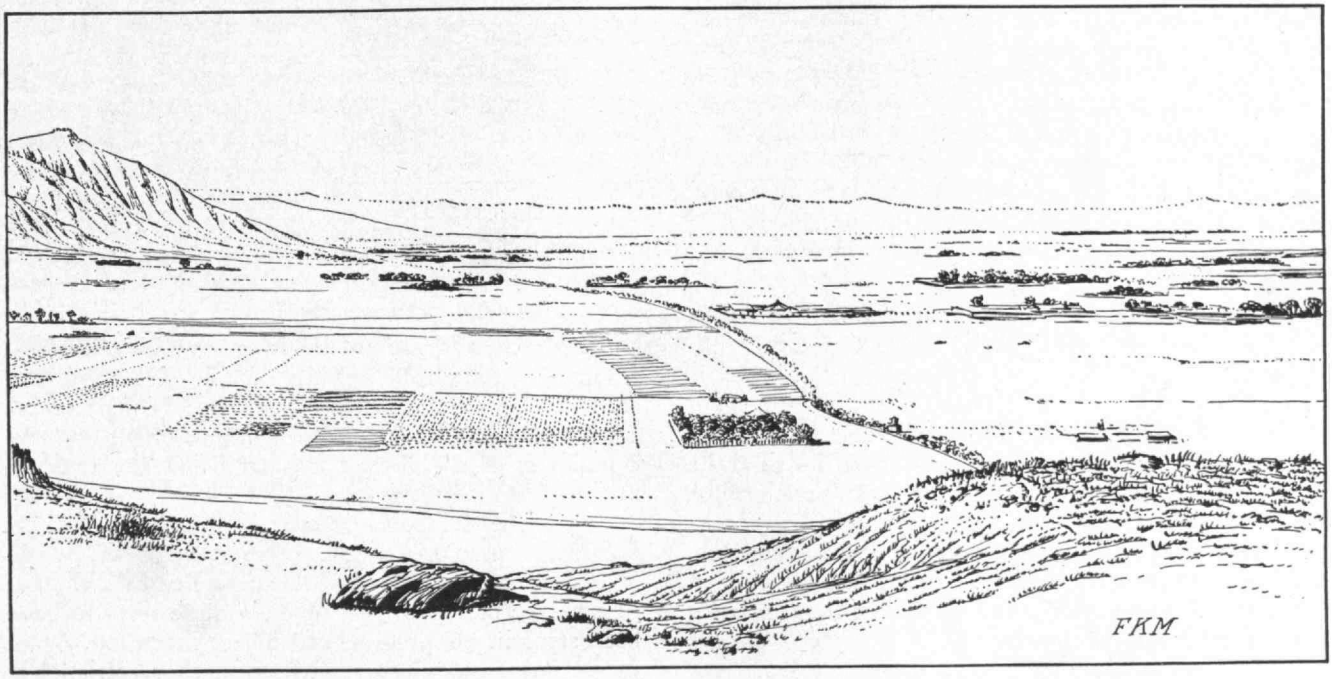
Progress and culture are immensely impressive phenomena; and when properly considered, they are clues to the mind of tribes and peoples. But progress and culture must not be confused with organic evolution. When we speak, for example, of the Italian Renaissance, most of us imply that the intellectual power of the Italian people made a great leap forward during a few hundred years, forgetting entirely that new tribes had migrated into Italy during the fourth and fifth centuries. Their invasion broke down the material civilization which Rome had developed, while the restless migrations and ceaseless wars of the centuries that followed retarded, though they did not wholly prevent, the growth of a new civiliza-

tion. When the new tribes were sufficiently stabilized, after their centuries of semi-nomadic life, to take up the suggestions of the rich, old cultures of Greece and Rome, able minds were turned to explore the fields of the arts and sciences. Mediterranean talent had not died with the fall of Rome; neither was Nordic talent born in the thirteenth century. Both achieved results which, if we could clearly separate them today (which we can't), we should see were proportionate to the tribal characteristics of the various peoples in Italy. It is biologically wrong to suppose that any of those peoples changed suddenly by a "development" or an "evolution" within a few centuries, or upon receiving suggestions from the art and philosophy of Greece. Perhaps the largest single problem which the world faces today is the allotment of lands and sovereignty to the several peoples of the world. In the past, the simple policy that "he should seize who could" —the policy which today we call imperialism — placed the responsibility for sovereignty squarely up to the people who held the land. If those people could maintain an effective defence, the land was theirs; if not, the invader was free to push them from it, or to rule over them. Today all of the greater peoples at least affect to abhor imperialism. Especially the Americans are bent upon benevolently helping all peoples to self-government.



In this respect, China is clearly one of the world's problems, and must sooner or later become a problem for America. That we sympathize with the Chinese people, and that we wish to befriend China goes without saying. But unless we proceed under a sound theory, our help will prove worse than none. An enemy who should conquer China and rule efficiently, would in the long run do less injury to the peoples' aspiration for self-government than would a friend who would thrust upon the Chinese responsibilities which they are unprepared or unable to bear. If races changed their characteristics easily and rapidly in response to cultural influences, then it would be reasonable to expect that schools, industries and perhaps Christianity will rapidly transform the Chinese people. Many advocates of this view argue that the civilization of China is older than that of Europe, and was higher until centuries ago. Many who cite these undoubted facts imply or even claim that therefore China's civilization will be higher again than Europe's or America's. Those who argue so have failed to consider the immense longevity of races, and are arguing in terms of easy and rapid changes. If every cultural change produced large and rapid alterations in the biological characteristics of people, is it conceivable that any race could maintain its identity through thousands of years? And yet, the larger races, including our own, have existed for enormous lengths of time. That all the existing races evolved, nobody doubts. That all races are evolving is implied by selective breeding and selective survival the world over. But the rate of organic evolution is so slow, that for any given century it is less erroneous to consider the race at a standstill in its evolution, than to think of it as easily mutable.

It will be worth while to compare briefly the progress of invention in Europe and in China, as a means of approaching certain mental characteristics of the two races. I shall submit two outstanding inventions which originated with the Chinese; but it would be just as fair, and

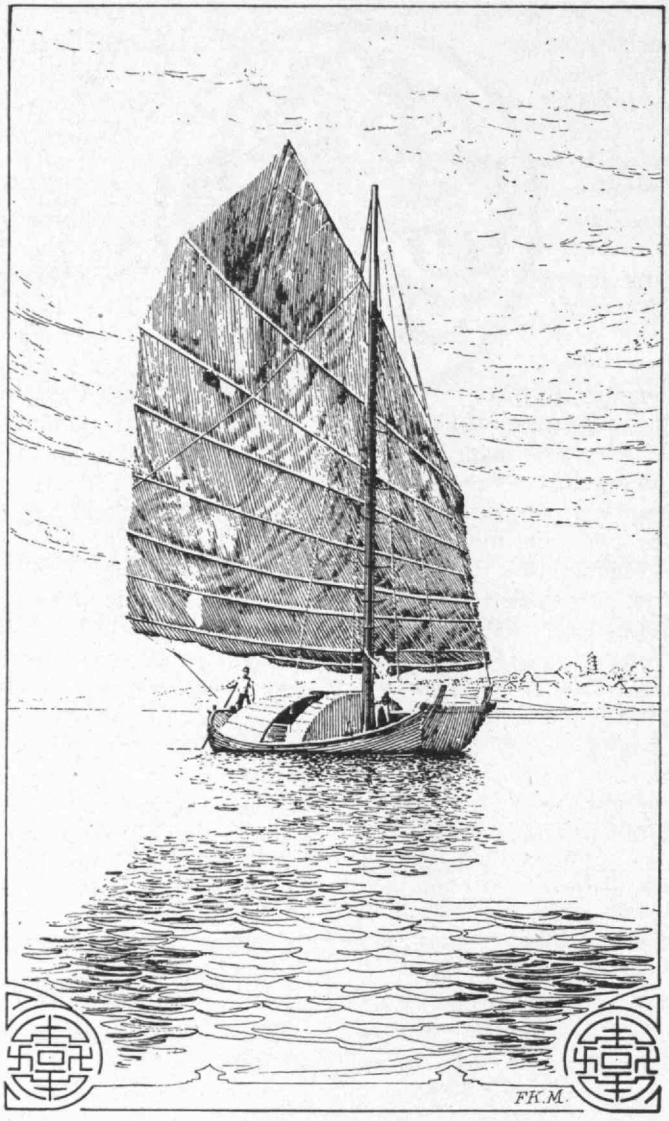


A SYMBOL AND THE GREAT PLAIN

The Chinese Long-Life Symbol (above) and looking north toward the Nankou Range

not less instructive, to examine what Chinese have done with inventions made by Europeans, and carried to China as suggestions toward cultural development.

Dr. Thomas Francis Carter gave us a vivid and scholarly history of the invention of paper and printing in China, and of its spread westward to Europe. Paper was first devised as a substitute for costly silk or heavy wood, in about 105 A.D. The Chinese improved the invention, making paper of many materials, textures, surfaces and costs. Not only was the invention made, but it was continually improved. Toward the invention of printing, Carter traces two chief strands of primary suggestion: one came from the use of seals, with which to stamp a signature, and this brought with it the development of inks. The other suggestion came from the making of rubbings on paper from the Confucian texts carved on sacred monuments. A soft, tough paper was laid over the stone and gently pressed into the incised carving. Then a brush full of ink was passed over the paper, leaving the inscription in white. From these beginnings, advance was made to carving characters upon a block of smooth wood, in relief as a seal is carved, and then inking the block and pressing it upon paper. No one knows who first did it; the oldest printed book is dated about 770 A.D., but its refined excellence shows that the art had already advanced through many improvements, and others were yet to come. Cutting up old blocks to use the characters over again in new documents, probably came as a labor-saving device; but it led to movable type — at first of wood, later of metal. Again, as in the case of paper, the Chinese proved able not only to invent, but repeatedly to improve the invention; and the development was not the result of one man's genius, but was a sustained effort, extending through many centuries, the work of many minds. The Koreans, Japanese, Indians and Persians took up the inventions, and applied them to their own needs, and several of these peoples made further improvements.



The claim has been made that printing in Europe was suggested by Chinese prints. It is quite possible; but in Europe, a series of earlier devices led logically toward printing, much as the seals and rubbings had done in China, and the invention may have been made quite independently. The first known printing-press in Europe is dated about 1440, and may have been earlier. In any case, China was at least 700 years ahead of Europe in this art. From the simple press that was slowly screwed down by hand, Europeans developed all branches of the art at their own characteristic rate. They adapted other discoveries to serve the printer; from the long series of triumphs in the application of steam, they drafted steam engines to run the presses. From chemistry, electricity, metallurgy, photography — each a growing pyramid of discoveries and inventions — new contributions came until the printing devices themselves piled into a pyramid of inventions, ranging from a portable typewriter to the giant newspaper presses, and including an infinite variety of complex devices for composing the text and for reproducing illustrations. Returning to Asia with their hands thus full of inventions founded upon the idea of printing, the European race finds that the Chinese, down to the present day, had never yet invented a printing-*press*, though they had a head start of 700 years over the Europeans in the field of printing. It was Europe that taught China how to print a Chinese newspaper.

II

Clearly the Chinese are not by any means mere imitators, they have been, and are, capable of the sustained effort of invention and repeated improvement of invention; only both their *rate* of improvement and the complexity of the devices falls far below the achievements of the Europeans.

China had the magnetic compass hundreds of years before it came to Europe. From a magnetic needle floated upon water, to a needle suspended by a thread, to a needle balanced on a pivot — these seem to have been steps in the progress of Chinese invention. Again the record shows improvements of a characteristically simple kind. Although their curiosity about the magnet led them to use it in conjuring, it never led them to study

magnetism or to see why the needle always pointed "south." And though their sea-going junks crawled along the coast of Asia as far as Arabia and the Red Sea, they never ventured across the ocean as far as the Philippines.

In Europe the beginnings of magnetism were equally crude. But within a few generations after the Europeans obtained the compass, they were knocking at the doors of America; and they came in ships not much better than Chinese junks. But splendid as was their record of early and magnificent exploration with the compass, it is beggared by the exploration within the compass itself; for within that world, Europeans have searched out the relation between magnetism and electricity, and have founded upon that relation a great science, and a host of inventions that have remade our civilization; among them the electromagnet, telegraph, telephone, dynamo and motor.

So if I were to draw two diagrams, one to represent Chinese achievement and the other European achievement, the first would be a line, rising from the discovery of natural lodestones, through successive improvements of the compass, and would terminate in the balanced compass and some conjurer's attachments. But in the European diagram, the line would divide and branch like a great tree; and unlike any vegetable tree, it would draw to itself stems that are rooted in other subjects — such as mathematics, chemistry and the physics of wave-motion — and would grow larger and branch into more discoveries with the sustenance so derived; while some of its branches, such as the study of the relation of magnetism to atoms, molecules and crystals, would be pictured as growing into and strengthening the science of physical chemistry.

Again, the difference between the advancements of the eastern and western races is salient. I regard these facts as of fundamental significance, not to be explained away by differences in environmental influences. It can't be argued that anything in the Chinese environment made *necessary* the study of magnetism. There was just as much and as little necessity for the one race to make the study as for the other to make it. Indeed, necessity is not, and never was the mother of invention. Genius alone invents. Those who have the ability invent far in excess and in advance of need; and those who have not the ability, don't invent even though their forfeit is failure or death. In a broad sense, all ingenious discoveries may be treated as inventions. Pasteur and Darwin were as creative as Marconi and Wright.

All races are imitative, and all are inventive in some degree; but each race imitates and invents in accordance with its inborn, racial characteristics; and these characteristics change only with organic evolution — a process so slow that, for historical purposes it may be almost neglected.

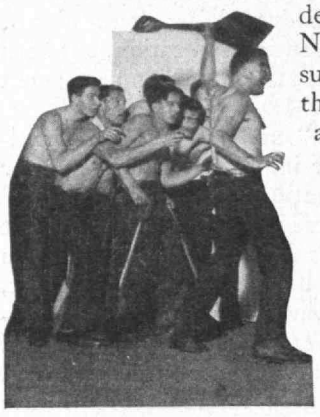
In judging present-day tendencies in China it is unfair to the Chinese people, and productive of danger to our own interests, to reason in terms of a rapidly changing race. Such terms as the "awakening of China" are almost always used to imply a rapid change in the quality of Chinese intellect or in the sense of an unchaining of intellectual resources hitherto dormant. Neither idea is biologically possible. No people sleeps, and none awakes. The immense abilities of the peoples of Greece and Rome expressed themselves in the splendid myths and legends, as well as in successful nomadry and conquest during the long centuries of tribal migration before they found their homelands in southern Europe; for no tribe can set up a material Wilderness and the covered wagons of our modern West were almost equally primitive in their essential civilization, but both gave rise to rich cultures when they had won permanent homelands.

"But," some have urged, "surely the Japanese intellect has either awakened or improved, to account for the extraordinary transformation in Japan since 1853." Probably Japanese intellect was as good at the dawn of the historical period as it is today. It would be egotistical on our part, and insulting to the Japanese people, to suppose that they were inspired with intellect, like clay images in a modern Garden of Eden, by the reopening of intercourse with the West. They have invented, imitated, and improved or adapted cultural elements, all through their long history, and at their own characteristic rate. From Korea and from China, they repeatedly took lore and suggestions — metal-working, kaolin, art motives and artists' materials, writing, printing, philosophy, religion, and ritual — and a host of other cultural elements. Within their own land, they invented and improved both inventions made at home and the borrowings from abroad. But the rate of invention and improvement was slow in comparison with the swift alertness of assimilation. So with each borrowing, a marked and rapid advance in culture took place — some would have called it an "awakening," a "renaissance." The phenomenon was progress, not evolution; its nature was cultural, not biological. Biologically the Japanese intellect was capable of taking up larger and richer suggestions than their neighbors had to give them; and when the sudden revelation of modern European culture spread a far richer feast of instruction before them than they had ever before enjoyed, their ardor and efficiency in seizing and digesting it have justly astonished the world. Nor have they merely accepted, but have conducted worthy research in every branch of science, and have made contributions higher than those of any other Asiatic race. But their fundamental characteristics have not changed, any more than when the Japanese learned from the Chinese to make porcelain or to study Confucian texts.

Undergraduate Affairs

The Dramashop

WITH a spirit and accomplishment novel to Technology a new organization has appeared among the undergraduates. Its name, slightly *précieuse*, is descriptive; The Dramashop, at first dubbed The Dramshop, professes to indulge the intelligent minority in their desire for amateur dramatics. Nursling though it is and suckled by an instructor in the Department of English and History, it gives evidence of a healthy constitution and an unmistakable capacity for growth.



THE HAIRY APE

"Yank" (L. C. Page, '31) and his companion firemen receive guests in "the stokehole of an ocean liner"

Prior to the Christmas vacation it gave three performances of Eugene O'Neill's "The Hairy Ape," and there is significance in the fact that the last performance was the best attended of the three and that, without any business or publicity organization to speak of, it was a financial success. It cannot be denied that this first piece was well done; the management, coaches, and cast, cognizant of their surrounding limitations, made the best of them and apprehended the spirit of the play in a most convincing manner. The work of Loudon C. Page, '31, as Yank was fine indeed, an admirable amateur performance. The Commons Room in the Rogers Building was used — a happy selection, for the intimacy and spirit of the place helped appreciably.

Under the guidance of Dean M. Fuller, Instructor in the Department of English and History, the organization proposes to carry on. At least one more play is in the offing for this year and possibly two. The Dramashop has not yet the status of an undergraduate activity; the aim is not in that direction. Like the Debating Society it depends upon no formal organization and derives its motive power from members of the staff who voluntarily lend their services.

This is not the first time, however, that the legitimate drama has had amateur treatment at the Institute. The Walker Club, formed December 4, 1894, in the balmy days of its infancy essayed just that sort of thing. At least seven plays can be recalled that were presented by this organization. And there have been attempts by other groups. Mrs. Ellen H. King, now Librarian in Walker Memorial, and a coach of "The Hairy Ape," has long fostered readings, if not performances. There were, too, the minstrel shows that preceded the present Tech Show.

Be history what it may, there is vim and promise in this new group. No great difficulty was encountered in obtaining the thirty undergraduates who participated in "The Hairy Ape." That many more are interested must be a challenging fact to certain old and well-established extra-curriculum activities.

Courtesy The Tech

"FILTHY BEAST!"

"Miss Douglas" (Rosemary Norris, '28) and the "Second Engineer" (C. W. Harris, '28)

Circus: Requiescat in Pace

Last spring after the All-Technology Circus had ended in a brawl, the Institute Committee held courtmartial and summarily ordered the offending Circus heaved overboard. There was many a tear shed over the departed and there were many moist eyes, but only a few of the mourners made audible their wails and lamentations.

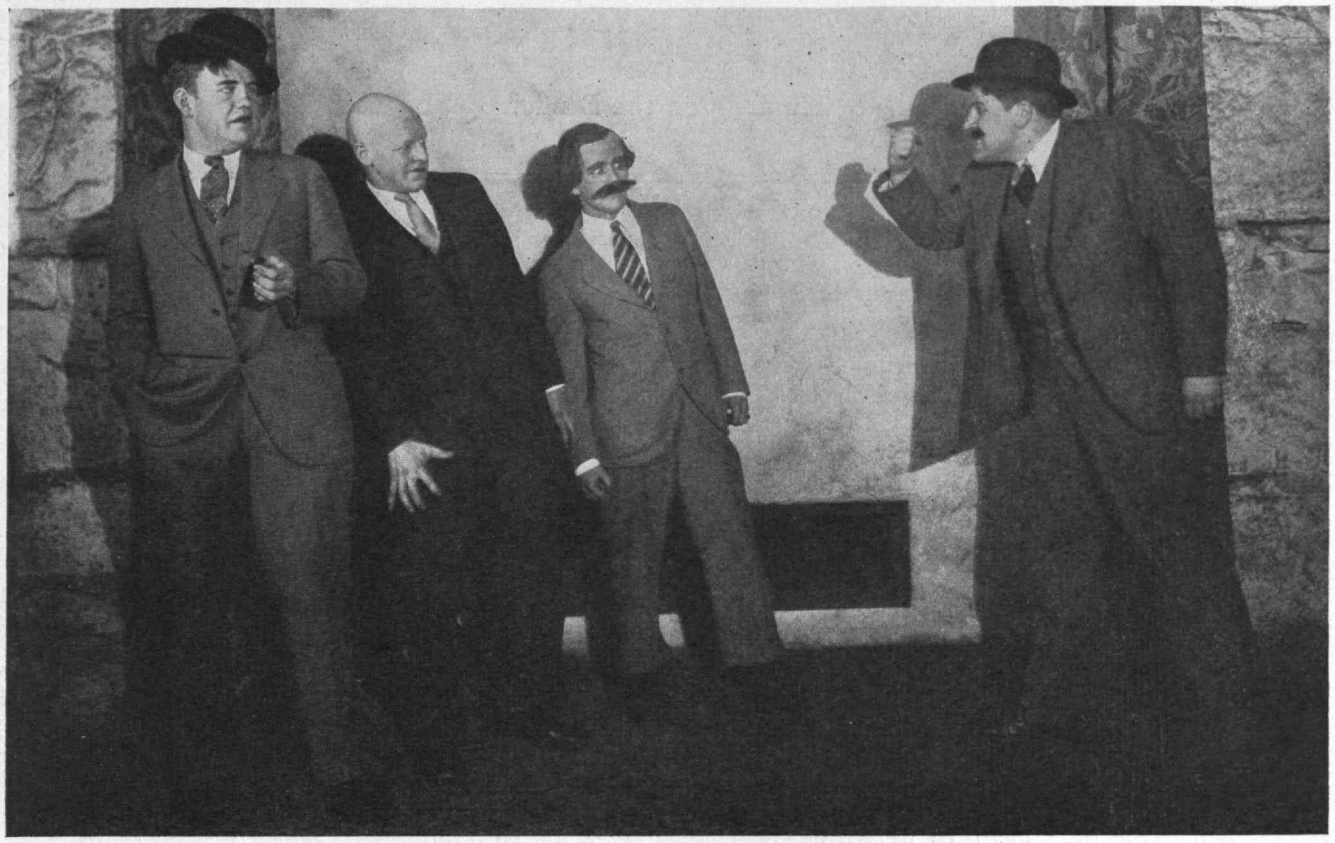
T. Lewenberg

"SURE! PUT ME IN A CAGE!"

"Yank" on the curb after being thrown out of I. W. W. headquarters. W. F. McCornack, '28, as "a cop." Scene 7 from "The Hairy Ape"

Again this fall the Institute Committee discussed the desirability of salvaging the derelict. The committee weighed every consideration and arrived at the obvious conclusion that if the student body did not care enough about it, the Circus wasn't worth reviving. They reiterated the vote of the spring. Again no protests were heard and the Circus remains in Davy Jones's Locker along with that other almost-forgotten institution, Tech Night.

In the May, 1926, issue of The Review, a description of a successful Circus was closed with the following words: "The Circus would seem now to be tradition. It embodies the vigorous abandon of the erstwhile Tech Night without most of its difficulties." Thus is "abandon" abandoned.



DETECTIVES

A group from Tech Show. Left to right, L. J. O'Malley, '29, B. G. Hastings, '30, N. F. O'Shea, '30, and W. F. McCornack, '28

Tech Show 1928

"Half a Man" (the final title of the current Tech Show) is the usual androgynous musical comedy with a detective-at-the-Long-Island-houseparty plot. It makes its début in Hartford on February 2, plays at the Mecca Temple in New York the next evening, and then rests until April. On April 14, comes the annual trip to Smith College at Northampton; and on the twentieth and twenty-first, two performances in Boston instead of the customary three.

Alfred P. Morrell, '30, wrote the "book" around which the show was constructed, and, according to a recent announcement, Joseph D. Murphy, '29, was judged to have written the best of the musical scores submitted. In a rough and harshly-abridged form, the plot is as follows:

To the Long Island home of a Mrs. Booth comes Dick Ford, a student at the Institute. He is wanted by the government for a violation of the Volstead Act; he is in love with one of the houseparty guests; and he knows that the detectives are looking for him. All he can do is disguise himself, and — in true Tech Show fashion — he dresses in woman's clothes and becomes mute (*dumb*, unfortunately, has other houseparty associations that unfit it for use here). The detective, a menace to criminals and virtuous women alike, arrives, and, as the plot progresses, our hero's fortunes go from bad to worse; the dastardly detective is exposed; our hero finds that the government doesn't want him after all; the curtain falls; and another houseparty has been saved from failure.

ORIENTAL

R. K. Scott, '28, as "Dot" in Tech Show, posed on the balcony of the Commons Room in the old Rogers Building

What the Tech Show management will make of this year is, of course, still undetermined. The General Manager and his Public Relations Counsel are optimistic; the public awaits the first performance and the treasurer's report at the end of the year before passing judgment. The elimination of one of the traditional performances in Boston appears to be a good stroke of business. If the Show can play to two full houses instead of three, partially filled, there ought to be more profits, and with profits goes success.

Books

The Canadian Mounted · · Hunting on the Dinder · · Landscape Architecture

Stranger than Fiction

THE SILENT FORCE, by T. Morris Longstreth. $4.00. 383 pages. New York: *The Century Company.*

NO characters have been more misrepresented by fiction, stage or cinema than the Stetson-lidded "mountie," forever getting his man, and the cockney Detective Inspector, supremely happy, bursting into rooms from which rough criminals have just departed. The organizations which these characters are purported to represent consequently owe a heavy debt to George Dilnot for his "Scotland Yard: Its History and Associations" published last spring by Houghton, Mifflin and Company, and to Mr. Longstreth for the present volume on the Mounted Police of Canada. While Mr. Dilnot did little more than embalm the genealogy of Scotland Yard, from the Bow Street runners to the 1927 model of London "bobby," in 340 pages of fine type, Mr. Longstreth, in pleasing contrast, has produced a satisfying, moving story of the organization that, since 1920, has been known officially as the "Royal Canadian Mounted Police."

Founded to curb the "exuberant habits of the Blackfeet" and make possible the building of the Canadian Pacific Railroad, the first three troops of fifty men each were sworn in November 3, 1873, at the Hudson Bay Company buildings at Lower Fort Garry, now Winnipeg.

Early in 1874, 150 more recruits were authorized. They mobilized at Toronto and, on June 6, left for the Wild West. By permission of the United States they proceeded via Chicago, detrained at Fargo, N. D., and rendezvoused with the others on Canadian soil at Fort Dufferin. From this point the six troops of veterans and recruits, plus "a string of Red-River carts — 114 of them indeed," set out July 9 directly westward. It was the last great expedition "into the land of buffalo, redskin and rum-seller," and the column trudged 900 miles away to the Porcupine Hills at the foot of the Rockies, there to establish and garrison posts and patrol the region while Commissioner French led "weary D troop" back across the snow-covered plains to reach Fort Garry on November 4, "after 1,900 miles of unprecedented, ceaseless, and sometimes desperate endeavor."

This epochal trek established the reputation of the Mounted in the eyes of Canada. Their reputation in the eyes of the world was to be fostered by Sitting Bull, head medicine-man of the Uncapapa Sioux. Fresh from his victory at the Little Big Horn he crossed the border in the spring of 1877 with 6,000 savages "bearing a blood to-water-turning name," and "every move of Custer's conqueror was front-page news across the continent, and usually there was mention of the Police."

Followed four weary years of tact but firmness on the part of the Mounted, and thereby was averted an explosion which might have wiped out every white in the North-West Territories. All the while the medicine-man's power and prestige was being attacked by treating singly with his subordinate chiefs until, aided by a famine, the Police had the satisfaction of seeing him depart in December, 1880. "The memory of Sitting Bull is dim. But it is not too much to say that the uninvited, unwanted, unpitied grim old savage was godfather at the christening of a new renown."

"Riel is back!" was the message which swept across the prairie country in July of 1884, causing apprehensive forbodings everywhere except on the North Saskatchewan. There the "course of empire had deposited a few settlers of French-Canadian descent on some modest potato patches." Fourteen years before, Louis Riel, a youth of French extraction, had stirred these people to armed revolt over the activities of government land-surveyors, but their abortive uprising was easily quelled. Riel, escaping, sought asylum in Montana Territory, "where at that time one murderer more or less mattered little."

Evidently it was not to his liking below the line, for in his book he wrote, "The United States are a perfect hell for an honest man." So, when the intervening years brought a further continuation of the survey troubles and when appeals to the seat of government back east in Ontario were ignored, the stage was set for his return in the summer of 1884. After a winter of plotting he emerged as the self-styled "President of the Canadian Half-Breed Exovidat. . . ."

His followers struck in March, 1885, and there occurred the largest massacre of whites in Western Canada. Against heavy odds and the hampering indifference of Ottawa, which at last sent out militia who appropriated to themselves the credit, the Police put down the rebellion. Riel was hanged after a famous trial at Regina and "the Iron Age of the Force was over. . . . Never again (said the time-expired men) would the Police be required to do anything really worth while."

Ten years later, however, on July 24, 1895, Inspector Constantine and twenty officers were to establish the most northerly post in the British Empire, 1,800 miles up the Yukon, and on August 17, 1896, a prospector announced the discovery of new and rich placer gold fields. The stampede was on and "by mid-spring of 1898 the line of madmen was 600 miles long. . . . The whole 600 miles of hubbub was punctuated by detachments of Police, cool, obliging, uncommercial, and alone entirely sane." Appropriately enough, Mr. Longstreth calls this chapter *The Yukon Triumph.*

Further cross-sections of success are given in Chapters XXIV, XXV, and XXVIII, entitled *Peace River and the King of France*, *Distant Vigils*, and *The Phenix Trick in Winnepeg.* Though less spectacular than the work in Yukon Territory, there appear in these chapters inci-

dents of equal bravery and fortitude shown by members of the Force.

Nor must one believe that there is no longer a frontier. Read Chapter XXX about patrols within the Arctic Circle such as one of nearly 1,300 miles across the interior of Baffin Island and back, and about duty at Tree River Post, 600 miles by air-line from the nearest post-office and the same from the Pole.

The work of these "northern men" is indeed worthy of the finest traditions of the Mounted, and before long their exploits should provide Mr. Longstreth with material for a separate full-size volume. Meanwhile, he should be drafted to resurrect the "Story of Scotland Yard."

H. E. L.

Africa and Golden Joys

CAMELS, by Daniel W. Streeter. $2.50. 277 pages. New York: *G. P. Putnam's Sons.*

Dan Streeter, once a cotton manufacturer, is now a dilettante traveler and is as effusively, debonairly articulate about it as a freshly-weaned Princetonian. If Africa prompted him to jocundity, however, it did not seduce him into any nepenthic illusion. "In the end," says he, "it becomes just as harrowing to be charged by a herd of buffalo under the Equator as by a phalanx of waiters in a Parisian café."

It all started, so the book would have it, when Streeter and a friend with the patronym Lake became satiated with the lush civilization of Paris and forthwith fled the banks of the Seine, debouched at Khartoum where the Blue Nile meets the White, and hauled up sometime later on the banks of the Dinder, a tributary of the Blue Nile in Fung Province, Sudan. Their route followed through Abu Hashim up the Dinder to Semsir and El Tabein, across to Fort Romala at the foot of the Abyssinian Hills, swung back to Rosaries and Singa on the Blue Nile to back-track through Makwar on to Khartoum. It should be noted that only during a part of the year is the Dinder a river; usually it is only a ditch in which at intervals may be found oasis-like water holes filled with stagnant water, tiger fish, and crocodiles. It is at Makwar that the British are constructing a mammoth dam so that fields of cotton may soon "fructify to the honor of England."

As the title suggests, camels furnish a *leitmotif* for the book. The *hamla* of camels was assembled at Makwar: ". . . behind us rose a series of sounds at once weird and bestial; bubbling regurgitations; throaty groans; burbles, bleats and gargles; roars of leonine ferocity; plaintive wails as of an infant passing through a Gethsemane of colic . . . their small heads were attached to serpentine necks, yet sphinxlike they stared fixedly into the darkness. A sulphurous, fetid perfume drifted by on the soft evening breeze. It was not a monotonous perfume. It was continually shifting from bad to worse . . . 'anyone who's experienced the perfume of a camel knows the worst that can overtake a human nostril.'"

Add to this a troup of stubborn donkeys and a gang of disputatious natives and you have in grim realism the oft-poeticized and romanticized caravan. All is not skittles and beer on a trip like this, even if you do have the opportunity to shoot a bit of game.

"Yet Africa contains the germs of a strange and savage peace," writes Streeter. "It was our introduction to a life of Biblical simplicity. The feverishness of the world was gradually fading; our thoughts began to turn to elemental things — heat — thirst — hunger — the stalking and killing of game. The advance wavelets of a great ocean of peace began to fill our consciousness with their playful lappings."

Such an *adagio* passage is rare in the book; the author attempts the facetious in the main. Sometimes his humor is leavening; often it is puerile and sophomoric. It should be observed that the serviceable free-hand end-paper maps in the book follow a different system of spelling from that used in the text.

It is not amiss to suggest that a John-Livingston-Lowes technique of investigation might reveal how much material in travel books comes from books. Undoubtedly the Encyclopædia Britannica is indispensable to the authors, and to Afric travelers in particular, Roosevelt's compendious "African Game Trails" furnishes padding for books. And how could these travel authors ever have gotten along without Jonathan Swift's quatrain about African maps? Bating that, they certainly would have been high and dry without Shakespeare's "I speak of Africa and Golden Joys." Books on Africa are incomplete without these items. And finally, what would happen to travel books if their authors were prohibited from posing and answering the question: "Why do men do it?"

J. R. K. Jr.

Olmstead, et al.

LANDSCAPE ARCHITECTURE — A SERIES OF LETTERS, by Stephen Child, '88. $2.50. xiv + 279 pages. Stanford University: *Stanford University Press.*

Since the growth of our enormous cities there has arisen a very worthy profession, an old profession renewed which calls itself an art. We may cite historical examples of planners of cities, of estates and of gardens, but it is necessary only to state that the profession of landscape architecture, as it is now practiced, is based on the needs of the present as well as the precedents of the past.

Since the Industrial Revolution, upon which has been hung most of our present-day woes, the conditions of cities have grown steadily worse. Men, either in pursuit of wealth or under the cruel lash of necessity, have been driven into their maws. In order to save themselves from the deluge, certain, in fact most, municipalities have taken half-hearted steps to alleviate the misery resulting from the terrific congestion.

New York launched a competition for the design of Central Park. It was won by Olmstead and Vaux, and this firm, under various names, was to do later a great part of the city park planning in the United States. Their greatest triumphs were in Boston. The Boston park system is now recognized as the most complete in the world. Its scope, its provisions for the future, its splendid plan and scarcely less splendid execution, lead to the conclusion that in spite of its loss of leadership in the nation, Boston is the most thoroughly civilized civic development in America.

(*Continued on page 254*)

News from the Classes

The Secretary of 1877

VISITORS at Commencement last year holding favorable seats observed marching in the academic procession twenty-five venerable men, the representatives of the Class of 1877 back at the Institute for their Fiftieth Reunion. It will in no whit reflect on the remaining twenty-four members of the group to recall as notable among them the active figure of Richard A. Hale.

Fifty-two years ago — May, 1875, to be exact — he was elected Secretary of the Class, and since then he has held that office continuously. This extraordinary record is made the more impressive by the fact that the Class has not missed a yearly reunion during his tenure of office, and by the recent announcement of Mr. Hale's that he had in the last several months raised $2,700 among the few remaining members of the Class (thirty-four contributed) for an 1877 room in the new dormitory group. To these items should be added one more: he has constantly been a member of the Alumni Council since its formation.

This note of steadfastness and fixity and unflagging interest is clearly dominant in Mr. Hale's career. He was born in Lowell, Mass., December 3, 1852, and he now resides at Lawrence, just a short distance away. Immediately after graduation from the Course in Civil Engineering he went into the Engineering Department of the Essex Company at Lawrence and now in 1928 he is still with the same company. Mr. Hale's field of concentration has been hydraulic engineering, a continuation of his work at the Institute. It is interesting to note that he followed John R. Freeman, '76, noted hydraulic engineer, in the position of Principal Assistant Engineer for the Essex Company. His work in water power engineering has been distributed throughout New England, in New York, and in Delaware. The variety of his general activities is indicated in a measure by the dozen or more civic and professional organizations with which he has identified himself. Perhaps the climax of his work as Class Secretary came in 1910 when he published the Class Directory, a compendious work.

Has such a busy man diversions? We quote a statement of his own. "My favorite amusement is golf, to which I am devoted . . . also I enjoy photography." He is still

Bachrach

RICHARD A. HALE, '77

Since two years before his graduation he has been Secretary of his Class

Secretary of the Lawrence Boys' Club and on the board of managers of the Sons of the American Revolution and the Lawrence City Mission.

Those of a younger generation who summon enough energy to attend regularly Alumni Council meetings unfailingly find Mr. Hale there, just as he is always at the meetings of his Class, and exhibiting such spirits as to indicate that many more moons will come and go before he absents himself. He is the Ty Cobb of Class Secretaries. Every day he achieves some new record by the mere passage of time. His devotion to this Class and to the Institute is a unique record. It is a pleasure to record it in our little hall of fame.

To Paint the Lily

TO THE EDITORS:

Appreciating that the well-known modesty of the Secretary of the Class of 1901 would prevent him from breathing even the slightest words of criticism of the Review Editors, I wish to write in his behalf and call the attention of your readers to a notable omission in the December issue wherein you dealt with the activities of this versatile gentleman. I refer to his fame as an actor which began in his cradle days, continued through his successful rôles in Technology undergraduate shows, and culminated in his triumphs in sundry casts of the Brookline Amateurs. As a Thespian on the real stage, he might be compared to Adolph Menjou on the screen.

As far as data are available this Technology record shows that as a member of the Walker Club he appeared in the Walker Club play, "The Magistrate" where he took the part of Agatha Posket, and also later in "The Private Secretary" taking the part of the Reverend Robert Spaulding. His activities with The Amateurs of Brookline may be summarized as follows: On May 8 and 9, 1913, he appeared as James Raleigh in "Green Stockings." At a dinner of the active members on December 22, 1914, at the Copley Plaza he took the part of the Editor of the Gladiators in "Androcles and the Lion." December 9 and 10, 1914, he was Anthony Rawson in "Mrs. Bumpstead Leigh." This play was repeated in the Town Hall of Andover on December 12. In "The Rainbow" which was presented December 1 and 2, 1915, he took the part of Edward Fellows. His last appearance with The Amateurs on their regular stage in Whitney Hall, Brookline, was April 24, 25 and 26, 1919, where he had the rôle of Mr. Venables in "What Every Woman Knows."

I request that this communication be given publicity that Dr. Rowe may receive the credit due him.

(*Signed*) CHARLES E. LOCKE, '96

The Grab Bag

Experiences of a cub-reporter prior to the gay nineties and the economic conditions faced by aspiring Institute graduates in 1875 are written of at some length in the Class Notes of that numeral. We do not wish to throw perfume on the violet, but the high quality of Mr. Warren's notes from issue to issue demands comment from this court of justice. His memory is well stocked.

In the 1885 Notes, Ike Litchfield writes pertinently of Al McKim, founder of the Technology Club of New York. A painting of him hangs in the lounge of the present clubhouse — soon to be vacated as recorded on page 213 of this issue. Walter Kilham in his 1889 Notes adds to the paean of praise that George C. (Juddy) Wales, "Etcher of the Sea," has been receiving. The Review has had an unprecedented amount of comment on the etching by him on the November cover.

The compendious Notes of 1897 contain much meat this time. Therein are discussed the esoteric uses of Dunstable Dust. In the 1901 Notes Dr. Rowe adds to the gaiety of nations by a proposal for the furnishing of the new 1901 Dormitory. The Inner Sanctum has received a letter from Ros Davis, Secretary of 1905, protesting his "Doc" Lewis being changed to "Dr. Lewis" in his January notes. Dr. Lewis himself should arbitrate the matter. Turning through an old volume of The Review some time ago, we discovered a Boston *Globe* cartoon depicting our own Ros Davis in the guise of Teddy Roosevelt imperiously standing over a slaughtered lion. Photostat copies will be sent C. O. D. on request.

Aided and abetted, 1910 appears this issue. What has happened to the worthy Secretaries of 1913? H. B. Richmond in his 1914 Notes details Porter Adams's new Washington to Philadelphia air-taxi service. Perhaps the most readable passage in the Class Notes is the letter from Henry Sachs quoted in the Course V, 1925, Notes. A resident of the lively town of Johanngeorgenstadt, Sachs has been able to have such experiences as being nearly drowned in Lake Lucerne, nearly falling, in search of the fragrant Edelweiss, over a fifteen hundred foot cliff, and observing the Czechoslovakian variety of female. — Be it noted that *der Konvergenzpunkt* of 1926 has responded to therapeutic measures and that the embryonic editor of *Town Topics*, the Secretary of 1927, has survived the automaton's trying period of illness.

The birth rate is slumping. We have culled but three from the Notes this month: 1916, 1918, 1922, report one each.

Deaths

Additional mention of the following men, recently deceased, may be found in the notes of their respective classes:

GEORGE T. ELLIOTT, '74. Died in the fall of 1927. A proof-reader at the Norwood Press, Norwood, Mass.

FRANK H. JACKSON, III, '74. Died in the spring of 1927 at Los Angeles. His profession was mining engineering.

WILLIAM J. HOPKINS, VI, '85. Died November 24, 1927. "A man of exceptional parts both in the field of science and authorship . . . By far his best effort was 'The Clammer.'"

FREDERICK J. KINGSBURY, '85. Died July, 1927. President and General Manager of the Bridgeport Brass Company, President of the A. P. Swoyer Company of Philadelphia, Secretary-Treasurer of the Bridgeport Electric Manufacturing Company.

FREDERICK G. COGGIN, II, '92. Died on October 4, 1927, in Chicago, Ill. An executive of the Bovey Automobile Heater Company.

'74

Blunt writes that he is engaged on river work for the State of Illinois, rebuilding the levees damaged by the floods last spring. He wishes to be remembered to all the boys. — A letter from Stevens, who is in Naples, Italy, also sends regards. — The last quarterly class luncheon was held at the new University Club on October 25, with Bouvé, Barrus, Nickerson, Russ, and the Secretary participating. The latter told of the enjoyable European trip which he and Mrs. Read took during the past summer, mentioning especially the courtesies which were extended to them by the Mayor of Boston, England.

Since the last news from '74 was published, we have learned of the death of Jackson, which occurred last spring at Los Angeles. We regret to announce, also, the passing of George T. Elliot at Norwood, which took place suddenly last fall soon after the death of his wife. Elliot attended the luncheon last May, and he was rarely absent from these functions. — Our sympathy goes out to classmate John C. Chase, whose wife passed away on December 7 after many years of ill health. — CHARLES F. READ, *Secretary*, Old State House, Boston, Mass.

'75

Now comes a jogger from the Editors saying that owing to the holidays, class notes must be in hand in three days, which is a criss-cross upsetting when promised data for appealing news items have not been received. This recalls the experience of the cub unexpectedly assigned for a wedding to take place in the suburbs that evening. Confident in having assembled the needful facts, he wrote up the event before the time and happily kept the theater lark with his dear. On the second morning there was a pink envelope in his box requesting him to see the editor. Picture his amazement on being told, "Kid, your story was good stuff, but the wedding didn't come off. How about this?" I was that unhappy, perplexed cub.

Questions are asked: how many enrolled with '75, how many graduated, and how many are now living? If memory is not at fault, 118 hopefuls entered in the fall of 1871, which was the banner record up to that time. Following the first Christmas exams, came an appalling shrinkage; afterward more joined us, mostly specials and now and again familiar faces dropped out. We were inclined to the notion of having a go and a dawning get-together non-existing in prior classes, a conceit which was encouraged by a few professors. In 1875, twenty-nine graduated, of whom eight continue to answer, "Present." By an off chance, the record today shows the names of twenty-nine still on deck who were with the Class a few months, or longer and some of our specials scored successes to the renown of Technology.

When the '75 Alumni launched forth on their own, Courses I and III were tops. That was the era of railroad building and bonanza ore uncoverings. Civil and mining engineers went west as never before, or since, and Concord stages were being pushed off the map by locomotives, surprisingly. Two Comstock Nevada mines alone, the California and Nevada Consolidated, each paid regular monthly dividends of a million dollars. Many of these shares were owned in Boston. These outpourings of treasure from the depths of Mother Earth were the talk of both hemispheres! This in part answers the question of engineering then and today.

And it is of interest to hark back to the books on mining and metallurgy of that era. The best were in German, particularly those on recovering the values from lead-silver ores and dry ores treated with them. In the wild boom years of Leadville when smelters were

1875 Continued

being madly rushed to be put in commission, the metallurgists, primarily, were Germans and the Yankees played minor parts. Then, twenty-five years later, the furnace specialists and leading authors on each phase of metal recovery from ores were for the most part Americans, to the dismay of the astute, erudite Germans, who had been left asleep at the switch. Needless to note, our loved Alma Mater has supplied her full quota of these celebrities.

Review readers will recall Wilfred Lewis' visit to Italy, told in the November and December numbers. He writes on his return, "I had a wonderful trip to Naples, Rome, Venice and Trieste, returning through Switzerland to Frankfort and Mainz and from there to England by airplane. Then, in four weeks from the date of landing in Naples, I sailed on the *Berengaria* for New York. Mrs. Lewis went with me, and we were very much impressed by the prosperity which seemed to prevail in Italy under the strong hand of Mussolini. As I remember that country fifty years ago, beggars seemed to be in the majority. Now they are outlawed, loafing is not allowed and holidays must come on Sundays. They have plenty of water power and great industries are being developed. Germany is forging ahead also, but there they have 'doles' to contend with, almost as bad as in England. I shall look forward to seeing you at the annual dinner in January." Brother Classmates, heed well the foregoing and reply to letters from your Secretary.

Our Goodale, esteemed Uncle Charlie, dean of western mining engineers, President of the Montana Association of the M. I. T., honored member of other clubs and welfare organizations, remained in Montana a month longer than he had planned. In Butte and Great Falls, dinners and other social functions felicitated his home coming, for Butte acclaims him her foremost citizen. In a talk to the Round Up Club of the Butte Y. M. C. A. to which he is a beloved Santa Claus, he praised its city-wide recreational plan as fully equal to any achieved elsewhere, if not better. He took the train for Boston on December 12 to remain over the holidays and, after attending the annual alumni and class dinners, he was to go to Washington to glimpse at close range the tussels in the Senate and House. The Engineers Club, Boston, will reach him wheresoever he is. — HENRY L. J. WARREN, *Secretary*, 34 Franklin Street, Greenfield, Mass.

'81

T. Howard Barnes (or as we knew him, almost fifty years ago, Tom Barnes) died in Lima, Peru, November 15, 1927. As stated in the Class Notes in the December issue, he had undergone two operations last summer and thought he was in a fair way to recovery. He had made a name for himself in the sanitary world by his activities during the past twenty-three years in the West Indies and Central America.

Barnes was at the Institute from 1877–78 as a regular first-year student. In 1879 he was in the city engineering department of Cambridge on general municipal work and continued there until 1884, when he embarked for himself on general engineering work and was for two years agent for the Board of Health of Waltham on a sanitary survey and an inspection of plumbing.

In 1887 he went to Decatur, Ala., for two years to be assistant engineer of a land company on work connected with the laying out of improvements in a new part of the town; and in 1888, transferred to New Birmingham, Cherokee County, Texas, as chief engineer for the Land and Iron Company to supervise the improvement of a town site, construction of a furnace, and other industrial plants. In 1892 he returned to his home in Waltham and was made assistant engineer on sewer improvements and highway work with the city engineer of Newton. From 1893 to 1900 he was engineer of the Commissioners of Sewers of Medford and also city engineer on designed construction of sewer system and other municipal improvements and for the next five years located at Boston as a consulting engineer on municipal control town work.

All of the above experience amply fitted him for his future. In 1904–05 he located at San José, Costa Rica, installing a water and sewer system. On February 1, 1906, he entered the service of the United Fruit Company as chief engineer on its Bocas Division, Panama; October 31, 1908, he left the company; December 1, 1909, he reëntered its service as consulting engineer, located at Boston and New York; January 15, 1918, he resigned from the company. Since 1918 he was primarily engaged in engineering projects in which Minor C. Keith, 17 Battery Place, New York, was interested.

T. Howard Barnes was married on April 30, 1890, to Mattie Middleton Simmons. His children were: Harold Simmons Barnes, born November 11, 1895, who during the War was Lieutenant in the 51st Artillery of the French Army, and was awarded the Croix de Guerre; and Eleanor Barnes, who was born March 24, 1906.

Howard had a wonderfully attractive personality and a fund of information and anecdotes, so that he was always a very welcome addition to any gathering. He was ever a good friend and adviser and the young engineers valued his counsel, drawn from long and wide experience. He was the one among us who seemed to have discovered the fountain of perpetual youth. His sturdy figure and pleasant smiling countenance underwent little apparent change as the years rolled by. Youthful enthusiasm and the joyful zest for living were all undiminished and whenever he returned from the southern countries — after long or short absence — he slipped into his accustomed seat by the fireside of our friendship, quite naturally without commotion. Such always was his manner, genuine and unostentatious.

And so, for all his friends — men who knew him for a generation, or for some shorter period — Howard has gone back to his Far Country, and the seat by the fireside shall be his always.

Ira Abbott and John H. Allen, '81; Kaludy Spaulding, '89; and Frank C. Schmitz, '95, attended the church services in New York, November 29. The Secretary wishes to acknowledge the assistance given by Spaulding and by Charles W. Sherman, '90, in preparing this sketch. — FRANK H. BRIGGS, *Secretary*, 390 Commonwealth Avenue, Boston, Mass.

'85

Although it seems like yesterday, it was over six months ago on the occasion of the meeting of the Technology Clubs Associated in New York that it happened. It was a class luncheon; the host was the director of applied art of the Rockefeller Foundation; it was held at the Century Club, and as a demonstration of applied art — gustatory, intellectual, and social — it was a delightful success. In testimony whereof we will state that although the luncheon was called for one o'clock, it was time to dress for the banquet before we knew it. The pity is that everybody couldn't be there. The lucky ones were Richards, Lufkin, Bartlett, Lyon, Dewson, Richardson, and the Secretary.

Another very happy reunion was held by the invitation of Henry Sweet at his Dover farm, "Kokocache," June 26. The writer, who has a lifetime appointment on that date at Dover, N. H., had to depend on hearsay for the news of the day, and when Eddie Dewson went into raptures over the enchantment of "Kokocootie" (Eddie Dewson, too, mind you) we surmised at once that the day had been showery, eh Watson? However, the golfers golfed and the rest enjoyed each other as only '85 can. Henry had asked his classmates each to bring a guest and a very happy thought it was. C. Brown was present and kept things stirred up as usual, to say nothing of our entertaining cousin of '86, Charlie Peirce, who was induced to draw on his fund of reminiscences in his modest, shrinking way. Kokocache is a most charming place and its owner was graduated *cum laude* with the degree of Master of Hospitality in the University of the Old School. On his right, President Little and Frazer, on his left Brown and Pratt. Down one wing, Dewson, Bedlow, Copeland, Hildreth, and Jim Kimball; down the other wing, Charlie Peirce, Hunt, Fred Kimball, Means, Dick Pierce, and Steele, with sons, Brown and Frazer, nephew Little, and five other guests, making twenty-four in all. It was the first time in thirty years that Bedlow, who has lived in Texas during that period, has had the opportunity to attend a class function.

The passing of Harry Talbot was a facer for all of us. He had apparently passed the crisis after a major operation, but an overtaxed body and brain had required too much of him. We were proud of his distinguished career and of the recognition that had come to him from learned societies, but it was as a classmate that he was bound to us, and his greatest tribute to the honor of the Class was the fact that under his superior organizing ability the Department of Chemistry at the Institute was conceded to be "easily first" in this country. The quotation is from Professor Cattel of Columbia University. A number of the Class attended the funeral services at West Newton. Arthur Little and Fred Fox were honorary pall bearers, and Merrill and Litchfield were ushers.

We learn that Al McKim sailed for Germany this summer, where he will take up his residence. He has not been in robust health since he was so severely injured in a railroad accident several years ago, and he was obliged to give up his engineering practice at Albany, N. Y. He studied in Germany for two or three years in his early life and has always had a high opinion of its people and its life. Since his

1885 Continued

accident he has been prevented from meeting with the Class he loved. It was as much his class loyalty as anything else that influenced him to start the Technology Club of New York, but it was unselfish devotion to a good and worthy cause that kept him untiringly at it through thick and thin until it had a strong foothold in the metropolis. Over the mantelpiece in the lounge at the Club in Gramercy Park is a painting of him presented by the members. New York has never forgotten his self sacrifice and his pioneer efforts.

We did not know until last month that Billy Hopkins passed away over a year ago, November 24, 1926. Hopkins was a man of exceptional parts both in the field of science and of authorship. Of late years he gave most of his time to literary pursuits, having written several novels and frequently contributed to the *Atlantic Monthly*. By far his best effort was "The Clammer," a most delightful story, but little short of a classic.

Another author in the Class is Charles R. Richards, who has recently written "Industrial Art and the Museum," published by Macmillan, which follows his earlier work, "Art In Industry." This volume has to do with the museum that is concerned with things primarily of use but which also possess the element of beauty. It is a handsome book, beautifully printed and richly illustrated. Besides his duties with the Rockefeller Foundation, Charles is Vice-President of the American Association of Museums.

Another member of the Class passed away suddenly in July. Fred Kingsbury, as the writer knew him in Institute days, was a charming personality and the Class of '85 had a warm place in his heart, although his many business interests prevented him from meeting with us. The field of his operations was Bridgeport, Conn., where his interests were many and varied. He went to Bridgeport in 1899 to become Secretary of the Aluminum, Brass and Bronze Company, now the Housatonic Avenue branch of the Bridgeport Brass Company, from which he retired a few years later to take the treasurership of the Bridgeport Brass Company. Under his skillful direction the Bridgeport Brass Company prospered and Mr. Kingsbury became President and General Manager of the company. Subsequently he became chairman of the board upon the elevation of Carl F. Dietz as President.

He was also President of the A. P. Swoyer Company of Philadelphia, Secretary and Treasurer of the Bridgeport Electric Manufacturing Company, and former President of the Bridgeport Manufacturers Association. His civic work in Bridgeport included membership on the Board of Directors of the Chamber of Commerce, the Y. M. C. A., and active participation in Bridgeport's Community Chest, to which he was always a most generous contributor.

During the World War he was on the finance committee of the National War Work Council, and was chairman of the State Industrial Council of the Y. M. C. A. Throughout his life he was keenly interested in the success of young men. He was a director of the First National Bank and for ten years President of the Morris Plan Bank of Bridgeport and a director of the Union Trust Company of New Haven, and also of the Scovill Manufacturing Company of Waterbury. He was greatly interested in church work and for many years was vestryman of St. Paul's Church in Fairfield. He was many times chosen as lay delegate to diocesan conventions of the Episcopal Church. He was an ardent believer in civil service reform and was a member of the executive committee of the Connecticut Civil Service Reform Association.

Arthur Little has been further honored by appointment as a lecturer in the Aldred series at the Institute. See The Review for January. Many of the Class may not know that Arthur is a member of the board of the Engineering Foundation of New York, the recognized research instrumentality of the great engineering societies of America. The other Technology members of the board are Edward Dean Adams, '69, William F. M. Goss, '79, and George A. Orrok, '89.

Ev Morss is getting back into the harness slowly but surely, and has been going to his office mornings for some time. Just as a matter of habit he found it necessary to undergo another operation since his return from Europe this summer. After a succession of very serious illnesses covering more than a year it is with thankfulness that we can look forward to having him with us at class functions again. — I. W. LITCHFIELD, *Secretary*, Hotel Wadsworth, 10 Kenmore Street, Boston, Mass.

'89

Those who have followed Juddy Wales in his delineation of sailing ships through his successive mediums of pencil, etchings, and lithographs, and who saw his "W. I. Trade" on the cover of the November Review will be glad to know that a collection of these delightful drawings has been published by Goodspeed in book form. You can say of Juddy's ships that they are built right and rigged correctly to the last reef-point, and they sit on the water and seem to move before your eyes. If possible, these beautiful drawings seem to get better all the time, and they have the rare quality of combining an artist's technique with accurate detail and that indefinable quality of interpreting the spirit as well as the matter of the sailing ship period. — WALTER H. KILHAM, *Secretary*, 9 Park Street, Boston, Mass.

'91

The Secretary has very little to report for this number of The Review. Two months seem to come around rather fast. Notices have gone out for a Class Dinner to be held at the University Club on December 30 and an account of this dinner will appear in some future issue. — Arthur Alley is here on a trip from the Pacific Coast and we are looking forward to seeing him at the dinner. — George Hooper sends a letter reporting the death of Frederick Griswold Coggin, who started with our Class but finished in the Class of '92.

Francis Holmes and his daughter are traveling in Europe. — Jim Swan has recently gone with the New England Steamship Company and will be located at their headquarters in Newport, R. I. — Fred Wilson is writing a book, "Annals of Nahant," which will be published next spring. He ought to know his subject for the Wilson family have lived in Nahant for several generations. — HENRY A. FISKE, *Secretary*, Grinnell Company, 260 West Exchange Street, Providence, R. I.

'95

Contributions of news items during December have been lamentably small. Through the courtesy of Charles E. Locke, '96, we report the interesting item regarding F. W. Draper, as taken from the *Engineering and Mining Journal*, November 26 issue: "F. W. Draper, chief engineer of the Russ-Asiatic Consolidated, Ltd., of London, passed through New York this week on his way to Australia in connection with plans for extensive development of the Mount Isa silver-lead properties in Northwestern Queensland, in which the Russ-Asiatic is largely interested."

Do not miss reading the article on Alfred P. Sloan, Jr. '95, vs. Henry Ford in the *Cosmopolitan* of January, 1928. It is intensely interesting and illuminating, and the accompanying photograph shows "Our Al" just as he is today.

'Tis never too late to mail your subscription to your Secretary for the 1895 Dormitory Unit. — LUTHER K. YODER, *Secretary*, Chandler Machine Company, Ayer, Mass.

'96

Professor Chenery's return to Washington University in St. Louis, after spending seven years in special work at the Boston Public Library, has called for a favorable notice in "More Books" of December 12, 1927, including the statement that he is an accomplished scholar whose departure is a loss to the Boston Public Library. — N. H. Daniels is so busy with Stone and Webster that his classmates see very little of him. However, he does occasionally get away from his work, as is indicated by his appearance before the Students' Branch of the American Institute of Electrical Engineers at Technology, on December 2, when he gave a talk on the course that a graduate would follow with Stone and Webster, starting, perhaps, as office boy and proceeding to the drafting department and then possibly to a position as Assistant Engineer, and thus upward according to his ability.

As an aftermath of the account of Billy Anderson's trip around the world in a recent issue of The Review, comes a letter from Paul F. Johnson of Altadena, Calif., whom many classmates will recall as having started in our Class at Technology. He says that he was surprised to read that he had traveled around the world with Anderson and did not know it at the time. He and his wife and mother and sister-in-law took the cruise on the S. S. *Resolute* and, of course, met the Andersons, but did not come to know them intimately. Incidentally, Johnson exposed 12,500 feet of standard motion picture film in his Eyemo camera, so that he will have twelve or more rather good reels of the cruise when he finishes his editing. — In response to an inquiry to Jacobs at Burlington regarding the Vermont flood, he reports that at his house they were well above the flood level, but that the flood conditions in the State were even worse than the newspapers had them. He has been around to several of the afflicted districts and found much of

1896 Continued

geological interest. An article written by him will shortly appear in *Science* in regard to the flood erosion at Cavendish. This ought to be of interest to classmates. Jacobs is planning to attend the Geological Society meetings in Cleveland during the Christmas recess. — According to the newspapers, Lythgoe is still on the job at the State House in Boston testing out the various samples of hootch that are submitted to him from all parts of the State. If the newspapers can be believed, the quality of the samples is improving, or else the manufacturers are learning how to do a better job because Lythgoe indicates that the material coming to him now is not quite as poisonous as in the past.

Admission by The Review Editors that the sabbatical year which they gave the Secretary had in fact never existed, and the substitution of a gift of a sabbatical month instead, calls for a word of explanation. The Secretary did have such a sabbatical month, but not of his own volition. It resulted from the failure of the Editors to send out the call for '96 Class Notes. Proper acknowledgment and due apology by the Editors for their lapse were made at the time it occurred. — CHARLES E. LOCKE, *Secretary*, Room 8–109, M. I. T., Cambridge, Mass. JOHN A. ROCKWELL, *Assistant Secretary*, 24 Garden Street, Cambridge, Mass.

'97

It is gratifying in this issue of The Review to present news from '97 men representing not only a complete cross-section of the country from Maine to California and from Minnesota to Mississippi, but foreign lands as well.

After leaving college, Franklin E. Bragg started out in the iron and steel business at N. H. Bragg and Sons in Bangor, Maine, and is now the President of that corporation. During the war period he put in quite a lot of time handling the executive end of the various drives for funds, which later caused him to drift into charity work. At the present time he is President of the Home for Aged Women Corporation, Vice-President of the Home for Aged Men Corporation, Trustee of the Good Samaritan Home Corporation, member of the Board of Managers of the Bangor Public Library, and a director of the Eastern Maine Musical Festival. As Frank expresses it, this list demonstrates that he has "quite an aptitude for attaching himself to a lot of non-paying jobs." He has, however, at least two jobs which do pay — the positions of President of the Orono Pulp and Paper Company and President of N. H. Bragg and Sons. In addition to these positions he is Vice-President of the New England Iron and Hardware Association and President of the Passamaquoddy Land Company, and is a member of the Board of Governors of the Country Club, and a director of the Merchants National Bank of Bangor. His outside interests, however, have not caused him to entirely neglect his family, for he says, "I have three children. My older daughter is married, and her husband is with me in the business at N. H. Bragg and Sons. Incidentally, also, I am a grandfather. My younger daughter is in the interior decorating business in Boston, and my youngest, a boy, is in Phillips-Exeter Academy, and will be ready for college next fall. Outside of my regular work by which I make my living, I find that I get a great deal of pleasure in my work among the various charities. It is very interesting work and gives one a feeling that he is really useful in his community and not just taking up room."

Alfred M. Brooks has been at Swarthmore College for the last five years as head of the Department of Fine Arts. He says, "The college is a stimulating and delightful place in which to work, and the town an ideal one to live in. I do some writing — articles and a book now and then. Last year I spent for the most part in Europe. My summer holidays are always spent in Gloucester, Mass., all of which is uneventful."

That engineering is still attractive to some of the '97 men is evidenced by P. E. Blood, who informs us, "During the past ten years I have been located at Niagara Falls, N. Y., in the engineering department of the Niagara Falls Power Company, having had a part in the installation of 322,000 horsepower of hydro-electric generating equipment which, added to that previously in operation, makes a total installed capacity of 557,000 h.p. Our latest installation was of three units, which are the most powerful of their type ever built, the normal rating being 70,000 h.p. each, which on an overload test reached 84,000 h.p. Our company also owns and operates the Canadian Niagara Power Company of 121,000 h.p. output, located just across the Niagara River in Niagara Falls, Ont. Our properties include an electric interconnecting freight railroad serving various industries: the Niagara Gorge Scenic Route; a bus line operating on the state highway from the Falls to Old Fort Niagara on Lake Ontario; two mammoth substations; numerous transmission lines and considerable real estate holdings — all of which require constant engineering attention.

"As to my family record, our sole offspring is one son, Donald K., who completed his course at Cornell University in June, 1926, and soon thereafter entered the employ of the Power Company. In June, 1927, he was married to Miss Susan M. Elson of Tonawanda, N. Y. The Niagara Falls Technology Club honored me by election to its Presidency at the November meeting. We are all enjoying good health and delightful friendships established during our residence here."

The following letter coming from Osborne B. Cagle has evidence of the fact that a technical education furnishes an excellent ground work for any branch of industry. "After leaving Technology I spent a great deal of time roaming over the country. I was on the west coast for a few years and in Alaska for one. I then came back east and on account of my health located in the piney woods section of South Mississippi. I was married in 1903 and have four children living. One son lives in Atlanta; another son attends Mississippi A. and M. College at Starksville; a daughter is in college at Vicksburg; and a girl in the public school.

"When I came to this section it was a pine wilderness and the homes were few and far between. The land was thought to be worthless but now, after the trees are gone and we have to turn to something else for revenue, we have found that the land and climate are ideal for truck growing and raising all kinds of fruit, including oranges, and this industry is going forward at a rapid rate. While we are interested to some extent in the above, our main business is the growing of gladioli and other cut flowers for the northern markets to which we send many thousands. The business is growing every day. We also sell many plants to the local trade.

"I am a Mason, my membership, however, being at Athol, Mass. I am a past secretary of the Poplarville Chamber of Commerce, and belong to all the organizations for the good of my town and country. As I look back, I feel that by what I learned in the classrooms and the association with the boys of Technology, my life has been greatly enriched."

Charlie Dunn is still living in his native town, Lock Haven, Penna., and in the following words makes clear certain facts as to one of his activities which heretofore seemed incomprehensible. "The constitution of the State of Pennsylvania requires that associate judges should be elected from men unlearned in the law. Upon the death of Judge Shearer, Governor Pinchot of our State, after diligent search, decided that I was best qualified as unlearned and he appointed me to fill the unexpired term, and the voters of this county concurring in his opinion elected me for a six-year term by a very small majority over my Democratic opponent, who seemed to have convinced a great many voters that he also was unlearned in the law. All joking aside, the associate judges take care of a great many matters which affect the moral well-being of our community, and sit in on all terms of court and have an equal vote with the law judge except in the matter of deciding legal points.

"You also ask about the development of Dunstable Dust. For a number of years I have been interested in the growing of tobacco and have been President of the Pennsylvania State Tobacco Grower's Association, a United States Experimental Tobacco Plot having been situated on my farm for the last fifteen years. The Agronomist in charge of this work has bred up the nicotine content of Nicotiania Rustica which is the original tobacco grown in America. Nicotiania tobacco, from which is derived all of the varieties of smoking, chewing and cigarette tobaccos, came originally from Cuba and Central America from where the seed was brought to this country at a very early date. Nicotiania Rustica has never been used commercially in this country. We have bred up the nicotine content by selection and crossing from the neighborhood of two per cent to eight or nine per cent, and we find that this particular locality will grow more nicotine per acre than any other section of the United States.

"I have devoted a great deal of time in the last three years to developing a method of making the nicotine of Nicotiania Rustica available as a cheap source of nicotine, and I am producing a very efficient non-poisonous insecticide which is especially effective in controlling soft-bodied and sucking insects, and which has very great possibilities. Chester County, Penna., alone has ten million dollars invested in the growing of mushrooms and for a number of years they have lost about twenty per cent of their crops from the damage caused by the mushroom fly. For a number of years they have been trying to control this pest and I am just in

1897 Continued

receipt of a report from State College that my Dunstable Dust is a perfect control.

"I have recently been made a member of the American Society of Agricultural Engineers and of the Franklin Institute because of this work that I have been doing. This has been a hard and painstaking study and there have been no returns for a number of years, but it would seem that I have arrived and that I will soon reap a reward for the work that I have been doing. If any members of the Class of '97 have a bug and it is not too hard-shelled, I would be very glad to lend assistance, and if things go right, hope to be able to attend the next reunion of the Class of '97."

Owen H. Gray writes us from Salt Lake City as follows: "After a year with the Western Electric Company in Chicago and two years as manager of the Mutual Telephone Company in Des Moines, Iowa, I opened an office here in Salt Lake City in 1903 and have been here ever since. For the first ten years I designed and built a lot of small hydro-electric plants. After that I organized a contracting firm which has built dams, pipe lines, and concrete roads. My time now is mostly taken up in developing and manufacturing the Electro-Matic Stoker, a device for burning bituminous pea coal in furnaces of private residences.

"After a long period of club life and bachelorhood, I married Elinor Stewart Kimball four years ago and established a home of my own. We have recently built a new house on a hill overlooking the city and have as a near neighbor, Louis Cates, '02, who is making himself famous as the successful general manager of the Utah Copper Company. He is building a $60,000 Spanish type house just across the street. There are quite a few Technology men here in Utah, but I am the only one from '97. I was greatly disappointed not to attend the last reunion at Old Lyme. Why don't you plan to have the next reunion out here in the 'Center of Scenic America,' so you can all see Yellowstone Park, the North Rim of Grand Canyon, Zion's Park, and Cates' Copper Mines."

The navy has attracted T. F. J. McGuire, who is living in San Diego, Calif., and who tells us, "I am in the employ of the public work officer, 11th Naval District, as a mechanical engineer. I have been with this office for seven years. You probably know that the navy has quite an establishment here, consisting of marine corps and destroyer bases, training, air and radio stations, and so on — so that the office I am employed by has plenty of work.

"As for San Diego, it is the most delightful place to reside in that I have experienced. If my former classmates were to visit this city I am convinced that they would never be satisfied until they had established permanent residences here. You can see that I have become an enthusiastic booster for California. I have quite a family — five children ranging in years from nineteen to seven. Twins are the youngest and reached the mature age of seven last week. They are 'native sons' although one happens to be a girl. The conditions in San Diego are ideal for raising a family, as the weather permits a child to be out in the open practically the year around. As a result the children always enjoy perfect health. I hope that I shall be pleasantly surprised by having some of my old classmates call on me some day. Give my kindest remembrances to the Class of '97. '97 is quite a ways back, isn't it?"

Farley Osgood is conducting his own business as a consulting engineer in New York. His son, Richard Hoe Osgood, was married on October 7 to Miss Lillian McKown, and lives in Orange, N. J. Farley is apparently in good health and spirits in spite of the fact that, as he puts it, "Of course, I am not quite as fast on my feet as I used to be in the old football days, but, thank God, still retain a perfectly healthy thirst in spite of the miserable federal laws."

W. Edgar Reed is in Pittsburgh, and gives the following account of himself: "I am now, and have been for the last twenty years, conducting a consulting engineering business in Pittsburgh. This business has put me in touch with the development of many manufacturing, mining, electrical and other industries in Pittsburgh, some of which have been very interesting. In some of these concerns I have, also, become financially interested. Outside of engineering my principal connections now are with the Pittsburgh Steel Company, Pittsburgh Steel Products Company, and the Workingman's Savings Bank and Trust Company, in all of which I am a director. I am also interested in the street railways of Pittsburgh as a member of the Traction Conference Board, whose duties are to enforce an agreement between the City, the Pittsburgh Railways Company, and the Philadelphia Company, and supervise the finances, service, facilities and rates of fare charged. Most of this engineering work is so much more interesting and absorbing than the search for fortune that the latter has probably been neglected.

"I have always been interested in physical exercise and continue golf in summer and hand ball and skating in winter, which keep me in a healthy condition as when at Technology. My family consists of my wife, three children and two grandchildren. My only son expects to graduate from Yale University in June, 1928."

Jesse W. Shuman has remained in his native heath, and gives the following brief account of himself: "After returning to Minneapolis after graduation in 1897, I worked for our local street railway for about two years, then with the Allis-Chalmers Company (then the old Edward P. Allis Company who made such fine Corliss engines) for about six years, and then formed the Power Engineering Company. Since that time, some twenty-three years, we have had our ups and downs in the engineering game. We specialize in hydro-electric plants and allied problems, and do work for clients all the way from Minneapolis to the Pacific Coast.

"I married in 1903, have a boy attending the University of Minnesota and a girl attending our West High School. You may recall that during college days I was quite musical and spent considerable time with that art. However, as I grow older I seem to have less time for that sort of thing. My spare time now is all put in studying on special problems that come up in connection with our business. Just now I am deep in the sunspot numbers, climatic changes, Bruckner Cycle, variation in rainfall phases about the United States, and so on. In summer, instead of playing golf with the usual run of fellows, I live on a farm located on one of our fine lakes, and put in my spare time farming and raising flowers and vegetables. I belong to the American Society of Civil Engineers, the American Institute of Electrical Engineers, and the Mathematical Association of America." — JOHN A. COLLINS, JR., *Secretary*, 20 Quincy Street, Lawrence, Mass. CHARLES W. BRADLEE, *Assistant Secretary*, 261 Franklin Street, Boston, Mass.

'99

W. H. Butler, whose address is 139 Queen Victoria Street, London, has written that he has just returned from a two months' trip to Scandinavia, Norway, Sweden, Denmark, and Finland. He says that he can recommend this trip to any of the Class of '99 who may be planning a trip next summer. It is the best traveling in Europe and the most comfortable. The food is excellent and the people agreeable. It is off the beaten track, and for this reason it is much more interesting.

Alexander Holliday suffered a series of indispositions the first of the year which, in his own words, were "all signs of that distance back that '99 lies." But he has recovered and is looking forward to at least fifty years of enjoyment. As a start he has taken up polo and says it is the best game there is. The second step in his program of enjoyment is a trip to Egypt.

George Priest writes that he and Henry Eaton spent two days this month hunting partridges in central Massachusetts. Henry killed all the game and jumped one bobcat that didn't wait to be shot. — B. R. Rickards, Director, Division of Public Health Education, State of New York, tells me that Station WGY broadcasts a health talk every Friday evening at 7:25, and they have been doing this every Friday night since 1922. On the day following the broadcast a news release is sent to every paper in the state, thus reaching thousands of people who could probably be reached in no other way. Rickards also discussed the subject of public health education and publicity at the Health Institute conducted by Professor Prescott this summer.

J. C. Dryer writes that he has two sons now in Technology. One is a sophomore in Course II, and the other a freshman in Course IV. He has already taken care of his subscription to the Dormitory Fund. — From James Ellery comes the following: "I have nothing very exciting in the way of news. I am still for Single Tax, and just now I am especially interested in the movement to get the 'Pittsburgh Graded Tax Law' applied to the smaller cities of the state. Last Saturday, December 3, was a large day for Erie — the New York Central-Pennsylvania Railroad Station being dedicated at that time. The next large event is December 10, when I speak before a group of youngsters on elementary chemistry."

F. O. Waddell writes that he occasionally goes off on an automobile trip for a few weeks, dashes madly along to see how much ground he can cover, and then "back to the mines." One of these little dashes took him up through New England into Canada

1899 Continued

as far as Halifax, where he spent four days at ease. On the way through Portland he called at the Cumberland Mills and had a short visit with Sutermeister. — W. M. CORSE, *Secretary*, 810 18th Street, Washington, D. C. A. H. BROWN, *Assistant Secretary*, 53 State Street, Boston, Mass.

'00

We are indebted to Grand General Secretary Charles E. Locke, '96, for the following item clipped from the *Engineering and Mining Journal* of October: "Professor F. C. Lincoln, of the South Dakota School of Mines, has returned to his desk at Rapid City, S. D., after a summer spent as manager of the Northwestern Quarry Company, which operates a quarry and crushing plant five miles north of Rapid City. During the summer Professor Lincoln installed a new crushing plant at the property, regular production being maintained throughout the season." We are glad to get this news from Lincoln, or rather of him, as he has kept himself a mystery for years enough.

And now, Classmates, all up for Charlie Smith! Once again he has broken into the headlines, and this time the news ought to bring every 1900 man to his feet. Commencing January 1, our gentle, suave Charlie is to be Vice-President in Charge of Operations of the New York, New Haven and Hartford Railroad. His last big job was a study of the transportation problem in New York City, an account of which appeared in these columns in November. We are glad of this, for if ever a man in this round, rosy world ever deserved unqualified success, Charles E. Smith does. We are both glad and proud, and offer the congratulations of every man in the Class. — GEORGE E. RUSSELL, *Secretary*, Room 1-272, M. I. T., Cambridge, Mass.

'01

Christmas is almost upon us as I sit down to pen the current records of the Class to which Technology owes so much. One concrete evidence of this basic indebtedness is the new '01 Dormitory, the outer portion of which is now approaching completion. Nestling on the sunny side of the building erected by the Class of '93, it forms the latest, and from our standpoint the most significant, addition to Technology's steadily growing domain. Now that our hope is realized — it must be always remembered, through the generosity of the unnamed member of the Class — I feel that we should do something to modify the grim asperity of its walls and introduce a pleasant homelike touch into the lives of the successive generations of lads who for a brief but happy span may be domiciled within it. We have many artists in the Class, and one thought which comes to me has been the presentation of various decorative and ornamental objects. Freddy Boyd, for example, a well-known authority in the field of still life, has offered an example of his work of heroic proportions for erection in the basement. Lammot du-Pont, a sheep fancier, as already noted in these columns, is to present a fleece for each room, that the feet of our youthful guests may be sheltered from the cold concrete when emerging from the morning bath. (The old term "the dirty Tech man" is now but a traditional reminiscence of the stern, uncompromising past.) The Strawberry King is arranging for weekly consignments of the products of his fields and vineyards, edible in their pristine freshness and useful as missiles when touched by the hand of time. Freddy Freeman, now making a reputation for himself as an interior decorator, is to collaborate with several of the members well known in the field of surgery in adding those little touches which do so much to promote the comfort of the individual, while Brickley, now assistant medical examiner, has agreed to act as a constructive critic of their end results. Bill Farnham, who writes me from New York that he is either a "vocal" or a "local" traffic manager of the American Tel. and Tel. Co. — and don't you wish they would — has designed a system of communication for local use which will embody several interesting revivals of archaic but pleasing practice, including the formerly well-known switchboard operator. This touch of medievalism should prove a particularly attractive note in an environment of ultra modernity. Ted Davis, from his ample acres in the Nutmeg State, is planning an unfailing supply of corncob pipes, while Charley Rockwood, from that debatable land, the Middle West, will supplement Ted's gift with pigtail twist suitable alike for internal and external use. Charley prefers the former, however. Frank Cady, dictator of the nation-wide organization controlling special libraries, is to arrange for an ample supply of those volumes which the restrictive laws of the Commonwealth, as at present administered, do not permit to be regarded as articles of barter and exchange. Bill Vermilye has consigned a carload of vat dyes in original containers, the contents to be used on those occasions of rejoicing when the neighborhood reflects a vermilion hue, while the vats themselves will undoubtedly find many uses in the more intimate domestic and culinary activities of our little guests. Numerous other gifts have been promised in such profusion that it seems probable that we shall have to erect an annex in which the inmates of the dormitory may live. I cannot emphasize too strongly the affection and tenderness, the solicitude for the welfare of the young, which have actuated the many donors in their beneficence.

In this brief tale many names perforce are omitted — some of them by request — but I cannot fail to recall that Bill Pepperell's domiciles have multiplied to such an extent that he is planning to place some of the progeny in each room. These should prove helpful on those occasions when authority makes unsolicited visitations. To those of you who have not as yet pledged your gift, let me urge you at this season of involuntary generosity to give way to your better impulses and provide some little article to cheer the heart of some poor lad forced by the stern necessities of education to leave his luxurious home. Following the practice of our better shops, I suggest for those whose imaginations are sterile, Belgian tapestries, Waterford glass, Jacobean oak, and the products of the factories at Sèvres and Meissen. Even though they be simple they impart a touch of homelike comfort when judiciously arranged. Garage facilities are to be provided, but because of the poverty of the Institute in land it is understood that no one inmate can maintain more than three cars. Facilities, however, for various forms of pleasure craft will be provided nearby in the basin, that hybrid outgrowth of the lovely, limpid Charles. Space has forbidden me to do more than touch briefly on but a small part of the advantages which our fortunate little guests will enjoy, and when we consider that each of these latter will intermittently and presumably under duress make contribution to the splendid work of Technology, we may all feel, I think, that this Christmas should be written down as one of golden opportunity sumptuously realized.

A few notes have come to hand from some of the distant members. Ellis Lawrence, who by the way has designed a façade for the sidewalk approach to the main entrance, is still taking care of Bill Holford who, in turn, is taking care of the City of Portland. Bill has also been elected Treasurer of the City Club of that thriving metropolis, and I understand that the firm is very prosperous. — Among pleasing avocations Ellis is Dean of the School of Architecture and Allied Arts of the University of Oregon. The architecture is a nice dignified name, but you may take it from me that the allied arts are where the real fun is to be found. As a part of the city planning campaign, Portland is to have a yearly combination of Mardi Gras and Bal Bullier engineered by these active city fathers. This is a part of the uplift program which they have initiated. Ellis is also a regional director of the American Construction Council and is honorary president of the Oregon branch of this organization. As I am not officially informed concerning the immediate activities involved, discretion counsels silence until I am in a position to gratify your curiosity.

My next to you will be written in the year 1928. I take this occasion to extend to every member of the Class who pays his dues to the Alumni Association — the others are spared the necessity of avoiding these monthly epistles — my cordial good wishes for the New Year. Further, I call attention to the fact that it carries us over the second stadium of our journey to our Thirtieth Anniversary, for which plans are already under way. In fact, it is not too much to say that a process of slow crystallization has already been begun — it blends better that way with the produce of our fields — which should come to ripe fruition in June of 1931. A pious thought is found in the suggestion that you make a New Year's resolution to pay your Class Dues. This dirty dig is not leveled at those who have shown themselves to be gentlemen of honor and nice feeling. The wishes of the Season to you. — ALLAN WINTER ROWE, *Secretary*, 4 Newbury Street, Boston, Mass. V. F. HOLMES, *Assistant Secretary*, 131 State Street, Boston, Mass.

'02

Classmates in the vicinity of New York met on Friday evening, December 9, at the Transportation Club as the guests of Class President and Mrs. Clyde Place. The movie films taken by Place and Mixter at the Twenty-Fifth Reunion had been worked up by the former into a reel which was shown for the first time, and provided much interest. The showing of the class movie was followed by other reels.

1902 Continued

Classmates present with their wives were Ned Baker, Bert Hathaway, Roy Kern, Fred Mathesius, Monte, Joe Philbrick, and Wilbur Vatter. Dunc Franklin and Bill Brown came stag. Several children of classmates also attended — Jack Place, Connie Baker, Betty Hathaway, Betty Mathesius, Esther Fruit, and the Misses Vatter.

Miss Jane Kellogg, eldest daughter of our ever popular classmate, Bill, was presented at a dance given by her father and mother at the Brookline Country Club on the evening of Tuesday, December 6. Later in the winter Miss Kellogg is going abroad, and next fall she plans to enter Vassar.

Two members of the Class became preachers on Sunday, December 11, which was celebrated in many Unitarian churches as Laymen's Sunday. Greeley preached the Laymen's sermon in Newton Center, and Hunter at Fitchburg. — FREDERICK H. HUNTER, *Secretary*, Box 11, West Roxbury, Mass. BURTON G. PHILBRICK, *Assistant Secretary*, 246 Stuart Street, Boston, Mass.

'03

It is apparent that your Secretary will not get writer's cramp making up the notes for this issue, as very little news has come during the past two months. — Roderick MacGregor stopped off in Boston for a few hours one day, about the middle of November.

The following item about Loughlin appeared in the Arizona *Mining Journal* of November 30: "G. F. Loughlin, economic geologist for the United States geological survey, has returned to Washington, D. C., from the Cripple Creek district of Colorado, where he has spent several weeks in making a survey of the deep mine workings. He will prepare his report, which will be issued some time this winter as a supplementary report to the Lindgren-Ransom geological study of the Cripple Creek district."

On December 16 a class dinner was held at the University Club with seven members present, as follows: Aldrich, Gleason, George Greene, Gould, Haddock, Wing, and S. P. Brown. The weather did not smile on us, but instead rained a flood or we would have had more out. One purpose of the meeting was to discuss in a preliminary way plans for our Twenty-Fifth Reunion. It was decided that this should be held somewhere in eastern Massachusetts at some suitable hotel where good accommodations and a golf course are available. Gleason and Haddock were appointed a committee to look up one or more such places and report to a meeting in January, when it is hoped that we can decide tentatively on a place. As soon after that meeting as possible the Class will be canvassed to find out how many are interested. Upon the result will depend whether or not it will be feasible to proceed with further plans. — CHESTER S. ALDRICH, *Secretary*, 10 Beaufort Road, Jamaica Plain, Mass. GILBERT H. GLEASON, *Assistant Secretary*, 25 Huntington Avenue, Boston, Mass.

'05

There has been a reorganization of the various Manning, Maxwell, and Moore outfits from which there emerge two large concerns. The several Bridgeport and Boston units became the Consolidated Ashcroft Hancock Company, Inc., of which Carl Graesser is Vice-President. Carl was formerly works manager of the Consolidated Safety Valve Ashcroft Manufacturing Company of Bridgeport, where he remains. Phil Darling also remains in Bridgeport as development engineer. Carl writes: "We had a miniature 1905 Class Reunion at my house the week-end of the Yale-Harvard game. Ned Jewett and Mrs. Jewett were spending the week-end with us, and Phil Darling and Mrs. Darling were in the party. Phil had a major operation at the Bridgeport Hospital on December 1, but is coming along nicely."

A year ago last summer we discovered Carl in Hanover, N. H., letting his son, Foster, look over Dartmouth. "While in Boston over Thanksgiving, I drove my boy to Cambridge, giving him an academic visual education of the 'yard' and the stadium. Then he was whirled rapidly down Massachusetts Avenue for a post-graduate view of the Technology buildings. He was unimpressed by Harvard, but, on the contrary, very much impressed by Technology. Anyway, he is going to Dartmouth for a year or so before he decides just what sort of technical work he wants to do."

We weren't smart enough but your Secretary's secretary suggests that Bob Adams' address, which came from the Alumni Office, really should read Yreka Inn, Yreka, California. — Now that Henry has gotten out a new Ford, there may be a call for a new flivver. But who's the designer and where's the capital? — Andy Fisher's propensity for writing letters to the newspapers has got him in bad again. Correcting the editor of the Boston *Evening Transcript*, he wrote that the first President of the Institute was "Henry Barton Rogers." And then things did happen. Oh, Andy, why don't you get your facts? — Jimmie Banash has moved down town to 168 North Michigan Avenue, Chicago. In addition to his former specialty of Fire Prevention, he now deals in Pension Plans. He retains a mild interest in golf, but insists that he has not visibly improved since the day when, in a moment of weakness, he accepted Billy Ball's offer of instruction. — Elmo Lowe writes from Evanston, Ill., that he has been below par for several years, but is slowly coming back. From a former draftsman of his we learn that he has been very busy with a large practice in which residences are a specialty and also with the Planning Commission of Evanston, in which he has been very active. — A line from Charlie Dean reports that the Oil Well Drilling Bit which he developed and George Jones patented "is doing very well, but as is usual in such things is not a revolution. I do not believe that is any reason for you to rush out at present and buy oil well stock promiscuously." From other sources we learn that Charlie is altogether too modest.

Frank Elliott is still running the Perry and Elliott Company which, as we recall, was a printing house. Now, from the letterhead and the tuneful house organ, played by Thomas Dreier and Frank Elliott, it would seem that the company manufactured twelve-sheet calendars and imported wall pockets, hangers, tissues and cut-outs which is just as clear to us as a Plate Up River, Ant.-Rott. freight rate. But Frank says that he goes abroad every year after Christmas "to visit Hamburg, Berlin, Chernmitz, and Czechoslovakia for the purpose of purchasing another year's supply of imported calendars." So they must have to do with that.

Charlie Johnson had a very close call when he slipped and fell under the train he was leaving at Melrose Highlands, where he lives. Charlie doesn't remember what happened, but he was badly battered and spent some days on the danger list at the Melrose Hospital. Fred Goldthwait saw him some time later, and reports that in spite of what he had been through "he was then happy because he had just been allowed the privilege of smoking a cigarette." We have heard from Charlie and are happy to report that he is coming out of it very nicely. — ROSWELL DAVIS, *Secretary*, Wes Station, Middletown, Conn. S. T. STRICKLAND, *Assistant Secretary*, 20 Newbury Street, Boston, Mass.

'07

Again we are indebted to Professor Charles E. Locke for the following item: From the *Engineering and Mining Journal* of November 19, page 831, is the following note regarding John G. Barry, "John G. Barry, whose office is in Room 613, Mills Building, El Paso, Texas, is in charge of the newly organized exploration department of the Howe Sound Company, and will be glad to hear of attractive prospects of any kind of mineral. The company has operating properties in British Columbia and Chihuahua. Mr. Barry was a recent visitor in New York."

Ralph H. Hall is factory superintendent of the Petroleum Heat and Power Company of Stamford, Conn., after having been connected in various capacities with several concerns since 1907. With his wife and two children, a daughter seventeen and a son of twelve, he makes his home on Ridgewood Avenue, Stamford. — Among the names of '07 men which appear in "Who's Who in America," 1927 edition, is that of John Evans. John is President of the International Trust Company, Vice-President of the First National Bank, President of W. S. Cheesman Realty Company, President of Evans Investment Company, all of Denver, Colo.; also President of the Board of Trustees of the University of Denver. John has two daughters and a son, the family home being 2001 East Alameda Avenue, Denver, Colo.

"No notable achievements in engineering work, but still have no kick coming at all. Do not play golf much, but I sure do like to play around out of doors, and often have Cullimore for company as in the old days of 1907–1909, when he and I were at Technology as 'sub-professors.'" So writes James E. Garratt, who is senior assistant engineer of North Jersey District Water Supply Commission, with a business office at 24 Commerce Street, Newark, N. J. Jim has three children. His home address is 40 Sylvan Place, Nutley, N. J. — James M. Gaylord, as hydro-engineer of Southern California Edison Company, is engineer of operation of one of the largest hydro-electric developments of the country. His entire work since 1907 has been along hydro-electric lines, and he has designed, constructed, and operated numerous power plants, transmission lines and pumping plants. Located at 700 Edison Building, Los Angeles, Calif., Jim writes: "Come on out and

1907 Continued

we will show you some country built for power development — Big Creek — every spoonful of water is a kilowatt-hour." Jim's home is at 611 Milan Avenue, South Pasadena, Calif. He has two children.

The career of Stuart C. Godfrey, Major Corps of Engineers, U. S. Army, and district engineer of the Mississippi River Commission Dredging District, with office at the U. S. Engineer Office, Memphis, Tenn., has been crowded with interesting and important events. He was with our Class at Technology for two years only, being appointed to the U. S. Military Academy in 1905. He graduated in 1909, being number one in his class. Grouping his school experiences together, or rather in chronological order, in this story — from 1910 to 1911 he attended the Engineers School, U. S. Army, and then from 1926 to 1927 was at the Command and General Staff School, being an honor graduate. His record since leaving West Point as recorded by himself follows: assignments in connection with the Panama Canal; improvements to the Mississippi River and the Great Lakes, 1909–1911; duty with troops, 1911–1912; instructor at training camps, 1917–1919; head of the supply division of Wilson Dam, 1919–1921; head of the Finance Division, office of Chief of Engineers, 1921–1923; district engineer, Boston, 1923–1925; district engineer, Memphis, Tenn., 1926 to date. He writes: "Fortunate, I think, in being connected with, (1) the biggest canal — Panama, (2) the biggest war, (3) the biggest dam — Wilson (second in charge), (4) the biggest river problem (at present)." Stuart is married and has three children. He extends a cordial invitation to '07 men to look him up in Memphis.

It was indeed good to receive a recent message from B. C. Gupta, who is professor of electrical engineering at Bengal Engineering College, Calcutta, India. From 1907 to 1908 he worked in the drafting office of British Thomson-Houston Company at Rugby, England. From 1908–1913 he was electrical engineer for a power installation project at Kashmir, India, and since 1913 has been professor as above stated. He repaired and rebuilt four 500 K. W. 60,000 volt G. E. transformers — a job which had been considered impossible in India; has designed a silk factory heater, costing seventy-five cents each, two thousand of them now being in operation; has designed a silk press and a cocoon electrocuting machine which operates successfully and economically. Professional and military honors have come to our classmate from India as follows: member of the Indian Educational Service, Fellow American Institute of Electrical Engineers, President of the Association of Engineers, Bengal, 1925–1928, Sergeant-Major Bengal Light House, Second Lieutenant commanding platoons in 2d (Calcutta) Battalion, obtained the King's Commission in 1925. He was married in 1909 to a Lynn girl, and has three children. In his letter he expresses the hope that in 1929, when he expects to visit the United States, he may meet a lot of '07 men. If you come to Boston, Gupta, let the Secretary know in advance and we'll arrange a special meeting to greet you. — BRYANT NICHOLS, *Secretary*, 2 Rowe Street, Auburndale, Mass. HAROLD S. WONSON, *Assistant Secretary*, W. H. McElwain Company, Manchester, N. H.

'09

Hugh Lofting's latest book of the Dolittle series, "Dr. Dolittle's Garden," has recently made its appearance in the book shops. For those who have not read any of these books your Secretary can heartily recommend them, particularly for the little folks. — At the annual meeting of the American Society of Mechanical Engineers, held in New York the early part of December, Mayo D. Hersey, Chief of the Friction and Lubrication Section of the Bureau of Standards, in conjunction with Henry Shore, Engineer of the Radio Corporation of America, presented a paper on "Viscosity of Lubricants under Pressure," and experimental determination of the combined effects of high pressures and temperatures, using the ball-and-slanted tube type of viscosimeter.

The Secretary has conveyed the sympathy of the Class to Paul M. Wiswall, our Assistant Secretary, who has recently suffered the loss of his father. — CHARLES R. MAIN, *Secretary*, 201 Devonshire Street, Boston, Mass. PAUL M. WISWALL, *Assistant Secretary*, Franklin Baker Building, Hoboken, N. J. MAURICE R. SCHARFF, *Assistant Secretary*, 435 Sixth Avenue, Pittsburgh, Penna.

'10

From some of the more or less long lost members of the Class have come interesting letters telling of themselves and their activities. Brad Jones writes from Wright Field, Dayton, Ohio, under date of December 4, that although he specialized in steam turbine design at the Institute, he is working hard "trying to develop useful instruments for airplanes," and hasn't seen a turbine since he left school. It is interesting to note his use of the word "trying," as the newspaper and periodicals give him considerable credit for having not only tried but also for having succeeded to a considerable degree. Brad ends up his letter by saying that he is still a bachelor; that he quite often runs across Flickinger, '10, and George C. Kenney, '11, both of whom are still in the army as captains in the Air Corps, and also sends his regards to "all of the old crowd."

Bill Arkell, from the deepest depths of Canajoharie, N. Y., exclaimed that he was glad to hear from us after these seventeen years. Bill says that he has been treating the Class Secretary well, as he has sent in a little information from time to time and that he, therefore, has nothing to add just now. However, a good piece of news he volunteered was the promise of coming in to visit us the next time he comes to Boston.

Frank Bell, the genial soul that he always was, crashed through with a two-page letter from Dallas, Texas. He freely admitted the accusation that every member of our Class had sadly neglected contributing to our Class Notes. Remorse and promises which we accept and pass on to each and every 1910 man were his plea, seconded by a rush and pressure of making a living for himself and family which, as he says, includes two sons, Frank F., 3d, age seven, Edwin S., age four, a household dog and two cats. Frank made some remark about the dog and two cats being decidedly in the way for which we can and do very strongly commend him having somewhat the same situation in the form of one household "Pooch." Frank also promised to pay us a visit on his next trip to Boston. All that can be hoped for is that he will adhere closely to his promise.

Harold Lockett, and who can forget him, sent a very welcome letter. One of his remarks was also pertinent and went along as follows: "1910 made quite a lot of noise while in college, but faded quickly out of the picture after that." His remark is true. The Class was a virile one up to June, 1910. Hal is not preaching, but was admitting that what we said was true and that he had done little to help. In addition, he mentioned the fact that he is still working for his first million. According to his own honest confession, "I only committed matrimony last June," for which we offer him and Mrs. Lockett our best wishes and congratulations.

And last, but not least, came a long welcome letter from Charles Almy, under date of December 13, 1927. Although Almy is located in business in North Cambridge, about four miles from this office, and we have been to his interesting plant several times in the past two years, we have never had the pleasure of a personal meeting. This is due to the fact that he is one of the busiest men of one of the busiest classes of the Institute. You see, he is filling fully the duties of sales manager of the Dewey and Almy Chemical Company although operating under the title of Vice-President as well as that of a partner. It is a known fact that his company is successful, which shows everyone that he is a busy man and hence the many thanks for his long letter. Almy admits much travel, not only in this country but three trips to Europe, one to the Orient, and one completely around the globe, all in the interest of his concern. One notable aspect of the round-the-world trip was the fact that he was accompanied by Mrs. Almy, who became Mrs. Almy as recently as 1926. Some words had been passed out by your correspondent as to having been a laggard in the matter of acquiring a life partner, which evidently brought out the fact that there had been another laggard. Also somewhat laggardly we extend the best wishes of the Class to the Almys. Almy's letter, telling of his long record of achievements, was ended as follows: "Mine has not been an eventful record, and now that I see how quickly it can all be recorded, I feel more than ever ashamed of my long silence." Certainly no need to be ashamed, as it has furnished at this time a renewed contact. It does seem that other busy members of our Class should profit by these letters from busy men to the extent that more of you would show the original 1910 spirit and write to your Secretary if only to say hello.

Another old-timer of the Class who has been digging around without saying much is your old friend, Skete Everett. We ran into him a few days ago out at the Hood Rubber Company's plant in Watertown. He is still at the job of directing methods of manufacture. It was good to see him the same old boy in the same old way. He complained a little, not of old age, lameness or backaches, but of not having heard much concerning all members of the Class, and particularly of his old buddie, Bill Schofield. We wrote to Bill Schofield, and his letter was returned by Uncle Sam from his place of business. We then sent the letter to Bill's home address, but having had no returns either by Bill or Uncle Sam's dead

1910 Continued

letter office, we take it Bill is too busy just now, but no doubt will crash through as soon as he gets the present bit of business ironed out.

In order to get our Class Notes rolling, an attempt, as you see quite successful, was made to get all of the old quiet members to become garrulous. Fifteen of the quietest ones were written to, and to date five replies and one dead letter return other than the one mentioned above as having been re-sent to the home address have been received.

We will await with much expectancy a few words from the other 1910 members, after which more letters to others of you can be looked for and all for the purpose of providing more and better Class Notes than we have had in the past. — DUDLEY CLAPP, *Secretary*, 16 Martin Street, Cambridge, Mass. R. O. FERNANDEZ, *Assistant Secretary*, 264 West Emerson Street, Melrose, Mass.

'11

It's been a long time since such a scant amount of material has been at hand for this section, although in this week preceding Christmas each day brings enjoyable Christmas cards from 1911-ers. But actual "new stuff" about the members of the Class is nearly nil at the writing.

Don Stevens had a pretty close call in midfall when he had a sudden attack of appendicitis, but a skillful surgeon was able to make him "one of the lucky ten per cent who survive a ruptured appendix," and now he is back at work with his usual wim, wigor and witality.

And so to bed! If you want to hear from Dennie, you must *write to Dennie!* — ORVILLE B. DENISON, *Secretary*, Room 3–207, M. I. T., Cambridge. JOHN A. HERLIHY, *Assistant Secretary*, 588 Riverside Avenue, Medford, Mass.

'12

From time to time letters are being sent out to members of the Class, asking their cooperation in gathering material for these notes. We wish more of our classmates would answer them. However, we do get some returns which we try to dish up for you in as entertaining a manner as our limited literary attainments and the conservative editors of this publication will permit.

Last month we promised to come through with the low-down on how Randall Cremer, I, got himself made Vice-President in charge of operations of the Frederick Snare Corporation. After a solid month of under-cover investigation, our secret service agents failed to get the real dope, so we had to permit Randall to testify in his own behalf. His story begins with a year as Assistant Instructor at the Institute in 1912–13. (Let us draw the curtain quickly on that act; we were "assistant" ourself for one year.) The scene shifts to New York, where Cremer started as a draftsman with Snare and Trieste Company, as it was known at that time. One year later his big chance came. He was sent to Chile as field engineer on the construction of a big ore-handling plant which Snare and Trieste were building for Bethlehem Steel, at Cruz Grande. He stayed with the job until 1917, becoming assistant superintendent of construction in the meanwhile. We wish that space would permit the story of the job, which involved some bold departures from the original plans and presented obstacles, which most of us would consider insurmountable. Remote from all civilization, practically clinging to the face of a rock-bound coast with the broad expanse of the Pacific at their very feet, they blasted a harbor out of solid rock and built their ore-handling docks in spite of storms and disasters. From the details which Cremer tells in his matter-of-fact way, a novelist could build a yarn which we'd all rave over. Returning to the U. S. A. in 1917, Cremer went through many interesting experiences and various steps to his present well-deserved recognition as an executive officer of the company. Classmates who are in the electrical or power game will be interested to know that Cremer's last outside construction job was on the Hudson Avenue Station of the Brooklyn Edison Company. He has also been on jobs in Cuba and other parts of the West Indies. At present his company is completing the foundations for the Staten Island Bridge for the Port of New York Authority. His address is Frederick Snare Corporation, 114 Liberty Street, New York.

From Alligator Lake Camp, Hancock, Maine, there came a letter which smelled of wood smoke and pine needles, a letter which caused our mind to stray away from the prosaic details of business, attention to which keeps our name on the payroll. This is not going to be a fairy story, fellows. No, but it's a Ferry story. Earl E. Ferry, VI, answering our letter which caught up with him on a hunting trip in the Maine woods, is an enthusiastic booster for a Big Reunion, a Real Reunion in 1932, our Twentieth Anniversary. (Yes, men, we're beginning to talk about it now, so you all had better note it down on your memo pad for June, 1932.) Earl is in the retail lumber business in Pittsfield, Mass., married and boasts a future prospect — at present aged two and a half — for Technology. Earl went through what he calls an "interesting" experience during the floods last fall. He was en route in his automobile for the Maine woods at the time with a party, and was caught in the storms which did so much damage throughout New England. They had to tramp to camp, over a trail that was partly under water and obstructed all along by fallen timber. They got there eventually, but Earl admits it was the toughest trip he ever expects to take. When he isn't off on trips like this, the lumber industry keeps him pretty busy, but not too busy to answer letters addressed to him, care of C. S. Ferry and Son, 40 Center Street, Pittsfield.

Another enthusiastic booster for the big idea of a big reunion is F. L. Mowry, XI. He also takes enough interest in helping to keep the old class spirit alive to sit down and write us a peach of a letter. The best thing we can do is to quote his letter in part: "I am associated with Swift and Company, purveyors of the Premium, Brookfield, Silverleaf, and kindred brands of meat products. I have been with this concern continuously since leaving Technology, four years in St. Joseph, Mo., and since then with headquarters in Chicago. Swift and Company maintains its own drafting, designing and mechanical organization, and my duties are in the administrative end of this construction department work. I was married in Kansas City in 1917, and we have a nine-year-old boy who is fast growing tall like his daddy.

"Whenever 1912 men are in Chicago and would like to see how everything except the squeal is saved in the meat packing business, it will be a pleasure to have them communicate with me at the general offices of Swift and Company at the Union Stock Yards." Mowry's address is 7835 Clyde Avenue.

We have heard that B. H. Morash has gone to England as manager of the London Branch of the Electric Refrigeration Corporation in charge of sales for all of Great Britain. We hope to get a letter from Morash some day after he has learned the language and gotten himself acclimated in that foreign land.

Your Assistant Secretary suggested to your Secretary that a few notes about himself would be in order. Your Secretary came back with the retort courteous, "The same to you." So here goes! D. J. McGrath, I, studied civil engineering for four years at Technology; was an assistant for one year in the mechanical engineering department under Professor Miller (may his shadow never grow less); went into the transportation game under Matt Brush with the Boston Elevated; got slightly (very slightly) mixed up with the Great War; then back to the railway game, that time in Mobile, Ala. But heredity proved too strong, and he turned aside from strictly engineering work and followed in the footsteps of his father, a former Boston newspaperman, in the direction of printer's ink. In 1920 he connected up with McGraw-Hill Publishing Company, and has been hanging on there somehow ever since. Mac is married, has two wild little red-heads, Mary Agnes going on toward three years, and David, Jr., still on the under side of one year, but full of the divil already. Last fall, Mac abandoned the cave dwellings of Manhattan and bought himself a house and a lawn mower and joined the Babbits who commute from Superbia, West Englewood, N. J.

Your Secretary wishes to report that on July 27 he was married at Wiscassett, Maine, to Miss Elisabeth McArthur of Montreal, Canada. After two weeks in Maine we returned to Marblehead for the rest of the summer. About the middle of September we sailed from Montreal for Liverpool. Ten days were spent along the way to London, stopping at Chester, Warwick, Stratford, Malvern, and Oxford. After two weeks in London we crossed the channel to Calais and went directly to Brussels, where we spent a very interesting two days. Next to Basle, Zurich, Lucerne, Interlachen, Montreaux, and Geneva. We had beautiful weather the whole trip.

The most interesting thing in Switzerland was the all-day trip up the Jungfrau by electric railway. The total ascent is some 11,500 feet, and the last three miles are inside the mountain itself through a tunnel blasted through the solid rock. At the end of the tunnel a very comfortable hotel built entirely within the mountain is lighted and heated with electricity. Leaving Geneva we went to Paris by way of Dijon, spending nearly two weeks visiting about the city. We sailed from Havre on the new French liner, *Ile de France*, and had an opportunity to absorb all the Nouveau Art with which this boat is so generously supplied.

W. T. Roberts, who was manager of the Construction Department of the Johns-Manville, Inc., for some time, has gone into

1912 Continued

business for himself under the name of W. T. Roberts, Inc., Engineers and Contractors, 164 Federal Street, Boston, Mass. This firm has been appointed approved contractors for the Johns-Manville, Inc., to handle exclusively for them, and in accordance with their standard design and material, the sale and installation of lumber dry kilns, paper machine hoods, asbestos theatre curtains, and moving picture machine booths. We all wish Roberts the best of success in this venture. — V. V. Ballard is now with U. L. Voris, specializing in orchard developments and maintenance of the Rancho, Santa Fe, Calif. Ballard left the C., M. and St. Paul Railway in Chicago last July to take up this work which consists of an old Spanish ranch of 8,000 acres. This is now being cut up into small tracts, planted in orchards, roads cut through, and residences built. The whole tract is irrigated and is located only six miles from the ocean and thirteen miles from San Diego. Doug Fairbanks has a 2,000-acre tract only two miles away. Ballard's job rates as a cost engineer, although he has to turn his hand to nearly anything.

E. C. Holbrook writes from the Raffles Hotel, Singapore, that he wants to let it be known that he has not reached the somnolent state of most of the rest of the Class. Although on the other side of the world, he is very much interested in hearing from the rest of us and expresses the wish that our notes would cover more space. From 1921 to 1926, Holbrook was in China and then, after spending eleven months in the States, left again for Singapore, where he can be found care of Messrs. Sime, Darby and Company, Ltd.

The Bulletin of the Minnesota Engineering Societies reports the election of Johnny Noyes to the Presidency of the Duluth Engineers Club. They follow this announcement with over a page and a half of John's intimate history, one paragraph of which seems to be worth special notice: "Most busy and capable men have hobbies of one kind or another, and Mr. Noyes is no exception to that rule. Had the Fates ordained otherwise, he could easily have been a magician or prestidigitator of parts like Merlin, Kellar, Thurston, Houdini, and others equally skilled and celebrated. He has a cute bag of tricks. Anybody that can pluck gold pieces and rabbits and such from places where positively there were none before is entitled to plenty. Our advice — gratuitous of course — is to surround yourself with every safeguard when playing pinochle with him. Even then you will be taking chances that run to the nth power against you. Another hobby is the honest-to-goodness circus."

After letting John in for this it is only fair to report that he is also President of the Minnesota Unitarian Conference as well as President of the Board of Trustees of the Duluth Unitarian Church. — FREDERICK J. SHEPARD, JR., *Secretary*, 125 Walnut Street, Watertown, Mass. D. J. MCGRATH, *Assistant Secretary*, McGraw-Hill Company, 10th Avenue and 36th Street, New York, N. Y.

'13

No notes have been received by The Review Editors from the Secretaries of this Class for inclusion in the February issue. The Secretaries received the usual notification that copy was due, accompanied by such news as had been compiled in The Review Office. Members of the Class having news or inquiries should address them to HARRY D. PECK, *Secretary*, 1123 Hospital Trust Building, Providence, R. I., or to G. P. CAPEN, *Assistant Secretary*, 25 Beaumont Street, Canton, Mass.

'14

A recent letter from Porter Adams brought the interesting information that our President, Buck Dorrance, has been elected a director of the Federal Reserve Bank of Philadelphia. As far as your Secretary knows, Buck is the first Fourteener to be a Federal Reserve Bank director, and in fact, the director of any bank. If your Secretary is behind in his information, please show him the error of his way.

When not bank directing or taking a large interest in the operation of the Campbell Soup Company, Buck finds time to be a director of the National Canners Association. It was while attending one of these meetings in Washington that Buck called on Porter Adams at N. A. A. headquarters. It is understood that Porter and Buck found so much of interest to talk about that Buck missed his train back to Philadelphia. This, however, was no calamity, as Porter immediately arranged for a plane, and Buck serenely flew to Philadelphia, arriving ahead of the train he missed.

"No, I am not dead, just hibernating." This is the opening sentence of a letter from C. W. Ricker. Rick then goes on to say that he is still a professor of Electrical Engineering at the North Carolina State College at Raleigh. He complains that few Fourteeners seem to pass through Raleigh, and expresses the wish that any member of the Class passing through would stop off and give him a hail.

Items for the column are very scarce this month, and in line with Coolidge economy, there will be no attempt to waste unnecessary words. Till next month. — H. B. RICHMOND, *Secretary*, 100 Gray Street, Arlington, Mass. G. K. PERLEY, *Assistant Secretary*, 21 Vista Way, Port Washington, L. I., N. Y.

'15

The lost is found! Imagine my great surprise and pleasure at meeting Gabe Hilton (in person, not in picture) face to face, or rather glass to glass. It was in one of those quiet out-of-the-way places in Syracuse where you — well, what's the use of making the rest of you fellows feel envious. Gabe was on his way from Detroit to Chicago and dropped off in Syracuse for the evening.

Seeing the boys personally is also arousing their ambitions for the Dormitory Fund. Gabe promised to send in his card. The following is a good letter from Don McMurtrie in Gorham, N. H. You will remember I wrote last month about meeting him. With Gabe and Don setting such examples I'll be glad to meet all the men. Don writes: "In reply to your letters regarding the Dormitory Fund, I am enclosing a pledge card. It was a happy coincidence that we passed along that street in Albany the other day at the same time — and I hope that your zeal for class news doesn't cause your imagination to go astray in writing up that account of the Paris Convention. Best wishes for the success of the campaign. With a little luck we may meet again soon."

You will all be interested to know of our standing and progress in the Dormitory Fund Campaign. On November 28, the Alumni Association records show a total of $111,900 pledged, $213,287 paid, a total of $325,187. Of those amounts our Class has pledged $765, and paid $425, a total of $1,190. Although I urge you to send in more pledges, you really have done well so far. Of the classes since 1900, only two have donated more than 1915 and of all the classes since 1868, only sixteen are ahead of us. We have had one very generous gift of $500, several of $100 and $50 each. Come on, fellows, boost this up some more, and put our total up proudly with the older classes. Let me have those cards back with big numbers on them.

Comes reliable Louie Zepfler to bat with the following hit that could easily score as a home run: "This letter is to congratulate you at the completion of your first successful year. You have done well, Mack, and it is good to read so much news from 1915. Keep it up and I know the men will do their part to help you out. While I have this many pointed pen in hand I should like to call your attention to the change of my address in case any one decides to accept my invitation to a Boston Saturday evening meal which I made about a year ago. Another thing while I am at it: your report of the 1915 luncheon in New York was rather incomplete due, no doubt, to the fact that you were unable to see Jim Tobey, since he had all the dope. It may be old news by now, but here are some of the men who were there besides Jim Tobey and myself: Alton Cook, located in New York with the U. S. Testing Company; Peter Masucci, located in Philadelphia, I think with the Mumford Company; J. S. Forgerty with the Brooklyn Edison Company; St. Elmo Piza, located in New York in pursuit of his profession and some pleasure; Bill Spencer was there from East Orange, I think; W. R. McEwen from upstate New York in business for himself; Ralph Hart, President, Secretary and Treasurer of the Hart Products Company of New York; Bernie Landers from Boston and M. B. Pinkham who, as I remember it, is in the insurance business. There were others there, but I can't recall their names. Before I close I would like to see a discussion started concerning the place to hold our Reunion in 1930. Kindest personal regards to you, Mack." He writes from 157 Palisade Road, Elizabeth, N. J. I'll fool him and go down there myself when I am next in New York. We need letters like that giving us good stories on the different men and what they are doing.

Constant attention to my work has made my life rather inconvenient lately so that I could not be around Boston for the Alumni Dinner on January 7. I hope next month to record a dinner of our men in and around New York which Jim Tobey is going to help me put on.

From Professor Charles E. Locke's office at the Institute comes the following interesting item. Those who remember Trushlevich will be glad to hear of his success: "From the *Engineering and Mining Journal* of November 19, on page 831, is the following note regarding Professor Trushlevich of the Class of 1915: 'Professor Victor J. Trushlevich, of the Academy of Mines, Moscow, left New York

1915 Continued

for Moscow on November 9, after a six months' sojourn in the United States, visiting various metallurgical plants, selecting and purchasing machinery for the equipment of the first copper flotation plant for the Atbassar trust in Siberia. Professor Trushlevich is manager of this enterprise. Construction work will start at once, and the plant is expected to be in operation during next summer. Professor Trushlevich has engaged an American engineer for his assistant. This engineer will proceed to Russia soon.'"

Apparently you men have overcome your former modesty or lethargy and are able, willing, and ready to write in some good letters. Now, has any one any suggestions for brightening up or enlivening our monthly column? Can any one give me an idea for a new or unusual presentation of the class news? Continue your letters but think hard on something new. Who'll be the first? — AZEL W. MACK, '15, *Secretary*, 377 Marlboro Street, Boston, Mass.

'16

Murray Graff, writing from Denver, Colo., claims to be unable to locate any other '16 men in that part of the world. He is now manager of the Industrial Division of the Westinghouse Electric and Manufacturing Company at Denver, a place he must enjoy, as he hasn't been back East in six years.

Jeff Gfroerer dropped in on your Assistant Secretary just before Christmas, full of the virtues and allurements of the New Victory Six, which Dodge Brothers, in conjunction with Gfroerer, will have introduced long before this gets into print. Jeff explained that, by February 1, Dodge Brothers would be the largest users in the world of electric current for heat treating, and by that time all their heat treating would be converted to the electric process. All of which is no doubt interesting and important, but to a poor sanitary engineer selling bags it doesn't mean so much. Possibly The Review advertising department may consider it irrelevant in this section anyway.

Jeff also told us of Henry Shepard's latest acquisition, Henry Shepard, Jr., born in October. Shep is now general sales manager of the Lewis-Shepard Company. Warshaw is also with the same concern, as chief engineer. Doug Robertson had visited Jeff in New York. He is now with the Mt. Hope Finishing Company as plant engineer, at North Dighton, Mass. Some of those fancy shirtings you received for Christmas no doubt were the result of his brain. Jeff had also called on Moose Jewett at the Larkin plant at Buffalo, to sell Moose a whole fleet of Dodge cars and trucks. As Moose was "out," it wasn't necessary for him to say "No." — RUSSELL H. WHITE, *Secretary*, Kardex-Rand Sales Corporation, 118 Federal Street, Boston, Mass. CHARLES W. LOOMIS, *Assistant Secretary*, 7338 Woodward Avenue, Detroit, Mich.

'17

Due to the Secretary's illness during the weeks surrounding the holidays it has been found impracticable to attempt to compile the many letters which have been pouring in since Thanksgiving. The Secretary is now fully recovered, and before these lines will appear in print he may have attended the Annual Dinner of the Alumni Association on January 7. Among others he expects on that occasion to bump into Monty Lovejoy and get his version of the Henniker fox story which was reported in the notes in the January issue.

Furthermore the Secretary expects in the not too distant future to run down the Maharaja of Bikaner story. It seems that Bill Eddy and Monty are both involved, the former having met Bikkie on his shooting trip to England a year or so ago. Bikkie is reported to own some of the choicest shooting in the world along the shores of his Gujner Lake in India. At certain times of the year the Imperial Sand Grouse, the exclusive relations of the commoner Pallas's sand grouse, collect from the neighboring desert and haunt this lake. Some people hunt them wearing rubber soles on their shoes, others wear white silk gloves, and also many employ special dopes against gun headache.

It was such a novelty for Bill to hear duck shooting stories told to him instead of telling them himself, that he was overjoyed to have Bikkie invite him out for a session, and he managed also to have the invitation include Monty. At least that is the rumor as it came to the Secretary. If the visit does become an accomplished fact, those attending the Alumni Dinner of 1929 may be regaled with stories of how Bill and Monty shot six birds with 600 shots or more probably, though less accurately, how they shot 600 birds with six shots. Bill's ambition is to shoot enough duck's in one day to make a feather bed big enough to accomodate Monty. — RAYMOND S. STEVENS, *Secretary*, 30 Charles River Road, Cambridge, Mass.

'18

News has come in this last month. Let it keep coming and we will really have some notes to be proud of. First of all, a letter from Ken Reid, to quote: "Inasmuch as I recently became the parent of a seven and one-half pound son, born October 29, it is clearly my duty to lead the way in sending in news. The infant has been named after his father and thus far has made no objection. I am now able to understand the other 1918 fathers when they speak of losing sleep o'nights." Congratulations, Ken, from all the 1918 crowd. Ken, by the way, has forsaken New York as a place to live and has moved up in Westchester County, somewhere. Let us know where, Ken.

Then comes a letter from Granville Smith. To quote: "Last year saw the termination of the Smith-Ludington Aircraft, a company I formed with C. T. Ludington, '22, to operate a passenger line in Florida. Our only plane, a Loening Air Yacht, was destroyed in one of the hurricanes there, and with it our hopes to revolutionize transportation in the south. However, I did learn to fly well enough to get a pilot's license. Going back to the insurance business I became Treasurer of the International Insurance Company of Montreal, P. Q., and have been given charge of the New Jersey office in the Concourse Building, Jersey City. Recently I moved to 71 West 12th Street, New York, where I will be glad to see any of the old crowd. This is convenient to Enrico's Restaurant on 11th Street, where the New York Alumni have their monthly luncheon." Thanks for the news, Granville. We are sorry your airplane business went up with the hurricane; but never mind, you are probably better off in the insurance game, and then again, you are able to see more of the old crowd by being in New York instead of in Florida.

The New York crowd have done more than well in coming through with news for this issue. If some of the others would just take the time to drop the Secretary a line, we might have a lot of news each month. I confess I did write to one of the New York crowd and asked him to get things started there, and he sure did. May they continue as they have started.

Here is the answer to the letter which I sent to Mal Eales about a month ago: "Your letter of a few weeks ago has remained unanswered for several reasons. In the first place we have recently become one of those alleged happy home owners, and, what with winding up the cat and putting out the clock nights, I have been as busy as the proverbial one-armed paper hanger. [Mal's new address is 43 Fulton Street, Bloomfield, N. J.] However, the change is most welcome after being a cliff dweller in an apartment for the past six or seven years." Congratulations, Mal, on getting to the point where you own your own home. Bloomfield is a pretty place and I think you will like it there. To go on with the letter: "Our monthly luncheons, the first Monday of each month at Enrico's, are going along for another year, making about three so far. Among those who come out most regularly are Jack Kennard, Clarence Fuller, Baldy Miller, Granny Smith, Ken Reid, Bill Foster, Sax Fletcher, Jack Cassidy, Mel Bond, Sidney Judson, and last, but not least, Pete Harrall, who does most of the work toward getting the postcards out. Clarence Fuller reported running into Don Burton not long ago, so we have added his name to our list and hope to get him out next month. Cliff Bellis, who used to favor us with his smiling countenance quite regularly, and who used to shoot bridge with us occasionally, has moved from East Orange to Foxboro, Mass., so there is another good man for the Boston lunches. [I have made a note of this change and will get him on our Boston list immediately.] I think he is to be head of the research department, steam flow meter division, of the Foxboro Company, Inc.

"Jack Kennard was married last June to Miss Ida May Snyder of Baltimore, and now hangs his hat at 262 North Grove Street, East Orange, N. J." Congratulations, Jack, from the whole Class. I saw your marriage intentions in the Boston papers back in the bygone days, but did not realize that you had kept your residence here in Boston. Why didn't you tell me of your fatal step when we were talking of other people in New York? "I talked with Sam McGregory and Mike Malley recently. They live about ten blocks apart, one in Bogota, and the other in Ridgefield Park, N. J. Mike started in business for himself last March and has done quite well in contracting, especially for the first year." Thank you, Mal, for the news. It all helps out immensely.

Now from Florida comes a letter from George Hutchings. This came as an answer to a message of mental telepathy which I sent George, but he didn't know it. "I note by The Review that you are not getting many

1918 Continued

responses to your requests for news from the '18 men, so I thought I would let you know that I have located in the State of Florida. After spending five years in South America, I thought I would prefer the South to New York, where I was located during 1924–25. So far, I have not regretted my move, as I am one of the few who did not look to real estate as a stepping stone. My sign business has grown steadily, and it is not just a seasonal proposition. Florida has unlimited opportunities, so I hope some day I will run into some classmates down here." This letter was written on the stationery of the Ace Sign Company, whose motto is "Play the Ace for Better Service." Thanks for this news, George, and by the way, if you know any news of any of your fraternity brothers in our Class, please let me know. Some of them are around this vicinity, but as far as their friends are concerned, they have dropped out of sight, except when we see their names in the papers. The present Business Manager of Wellesley College is in this list.

In the hunt for the Class Baby which I started in the notes last month, I have had one note in answer to one of mine. From our old friend, Maggie Magoun, comes the news that his oldest daughter, Priscilla, was born November 10, 1919. He says, "In addition to this model, I have two sons, one dog, a cat, three goldfish, and a very efficient wife." We are glad after these years that he still feels this way. He also tells us: "As far as news of the Class is concerned, I understand that Donald Merrill, who has been ill for several years, is now back at work with Bird and Sons. As for myself, I have a book coming off the press in January, of which I will later send you an advertising folder. Since it is to cost $15 a volume, I suppose that few of my classmates will contribute to the swelling of my royalties." He is probably right about the royalties, but I shall be glad to see the folder.— Now, as the hunt continues, can any classmate tell me that their youngster was born earlier than November 10, 1919? Send the news along if you can, so we may have it for the Reunion in June.

At this writing I cannot tell you any more about the Reunion except that the New York crowd still stick to it that it shall not be a stag affair, and that they have appointed their representative. The Boston crowd are to meet early on the day of the Alumni Dinner, January 7, and do some talking and make some committees for the Reunion.

Now one more thing. Last August Ray Miller sent out a letter asking that we do our bit for the Dormitory Fund. We are one of the few classes that up to date has had a drive, but we are the lowest in the list as far as money is concerned. Ray suggested we pledge at least the same amount that we did for the endowment. Then perhaps we could get our names on a staircase in the new buildings. Attending the last joint meeting of the Council and Class Secretaries which was reported in The Review for January, I learned some things that I want to pass on to the Class. The dormitories at Technology are much more advanced than at any other college. They give the boys about three times, if not more, for their money than any other place. If this is the case why shouldn't we try to do our bit? It only cost $2,000 to build and furnish one room; couldn't we make an attempt to do that instead of a staircase, thereby assuring ourselves that we will be represented in the new buildings? You know part of these new buildings are already in the process of construction and may be occupied in the spring. At present, after the drive of last August, 1918 stands as having paid $115 and pledged $40, which means $155 in all. We can do better than that. Let's get it started.

Thanks to the four letters that I had this month we are able to have some news of interest this issue. Let's have some more for next time. Who will be the next to write? — GRETCHEN A. PALMER, *Secretary*, 148 State Street, Boston, Mass.

'19

No notes have been received by The Review Editors from the Secretary of this Class for inclusion in the February issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review Office. Members of the Class having news or inquiries should address them to PAUL F. SWASEY, *Secretary*, at 99 Washington Street, Boston, Mass.

'20

Your Secretary has received no communication from the outside world, and this goes also for the excellent and efficient information service of The Review which combs the country for news items regarding Technology graduates.

The only reason I am placing these remarks in The Review, therefore, is to point out to those of you who read the Class Notes, if any, that your Secretary is not asleep on the job, but cannot make up spicy and interesting notes on account of his New England conscience.

I did see H. O. Davidson at the Power Show in New York, and found him looking hale, hearty and prosperous. He is chief engineer of one of the big Viscoe Company plants in New Jersey. — HAROLD BUGBEE, *Secretary*, 9 Chandler Road, Medford, Mass.

'21

No notes have been received by The Review Editors from the Secretaries of this Class for inclusion in the February issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review Office. Members of the Class having news or inquiries should address them to R. A. ST. LAURENT, *Secretary*, 431 Oliver Street, Whiting, Ind., or to CAROLE A. CLARKE, *Assistant Secretary*, Victor Talking Machine Company, Camden, N. J.

'22

Of all our associates to whom at the proper time we sent a very handsome letter, suitably hand-illuminated, only one has responded. He is the loyal and ultra-reliable Secretary of Course VI. From the rest there was silence, although we did have one promissory note. George Holderness, the Sweet Minnesinger of Architecture, pledges his life, fortune and sacred honor to the effect that the March issue of this magazine will carry a despatch from his glittering pen — the first contribution for the season of 1927–28.

Under existing circumstances, we have really nothing more to say this month. There have been no letters; there have been no calls, telephone or personal; there have been no marriages (at least none that anyone seems to want to make public); there have been, even, no deaths, although we had hoped for a few good ones. We can, however, give you news through the courtesy of Ray Rundlett, of one birth: that of young Miss Nancy Elizabeth, to Mr. and Mrs. Albert Sessions Redway, which occurred last November 26. We offer the sincerest congratulations of the Class.

Orville B. Denison, Head of the Institute's Denison Department, however, does save us by passing on an extract from a letter from Claus M. Thellefsen, who is practising engineering in his native city of Oslo, Norway, and is also secretary of the Technology Club of Norway. He writes: "As for me personally, I have bought a small house just outside the town where the three of us are living quietly. You will therefore kindly note that my address from now on is Vestre Abbediengen pr. Sköyen St. Please notify others who may be interested in knowing my correct address. My young eleven-months-old son is coming on fine, and it is my hope that I may be able to send him to the Institute in the Class of '50, or somewhere around that year."

A chance exploration of our right-hand overcoat pocket in the search for matches, just as we were about to conclude this meagre report, reveals a battered postcard from Frank Gage, whose address is now 111 Sutter Street, San Francisco, where he is appropriately and happily employed with the National Broadcasting Company. The burden of the card was to say, in high anger, that he had received no copies of The Technology Review for this year. He seemed to think that we could still do something about it. We can't, but we were happy to hear from the lad just the same.

Stimulated by the above discovery, we have not only gone through all overcoat pockets, but coat, vest, and trouser ones into the bargain. We have found a great deal of material of much personal interest, but very little susceptible to publication. We can, however, report authoritatively that the following gentlemen are *not* dead, since we had the pleasure of a Christmas card from them. They are the Messrs. Henry J. Horn, Jr., Wilfred M. Thomson, Charles Willis Stose, Lewis Pearson Tabor, John Edward Sallaway, Charles King Crofton, William K. MacMahon and C. Ford Blanchard.

Now we *will* stop. There were some bills in those pockets, and the tone of some of them was not polite at all. Where is that check book. . . . ERIC F. HODGINS, *General Secretary*, 8 Arlington Street, Boston, Mass.

COURSE VI

Monte Knight was unable to answer the roll call at Reunion, but his next best effort was received via the written word. While not written for publication, I will take the risk this time and quote:

"Yes, I am following the flying game after repeated unsuccessful attempts to stay out of it. As you perhaps know, I spent the year following our graduation at Harvard studying radio. Then I went with the Air Service as a research assistant. The next step took me to Johns Hopkins to study physics. I then re-

1922 Continued

turned to the electrical engineering field as an employee of Westinghouse at East Pittsburgh, and lastly I ventured south to Langley Field to work for the National Advisory Committee for Aëronautics. I am definitely sold on the prospects of aëronautics in commerce and in private life, and shall continue to do my small bit in this line of endeavor. And, by the by, I take the greatest pleasure in announcing that I have joined the ranks of those of our confreres who have relinquished the life of single blessedness." Monte writes from 125 Victoria Avenue, Hampton, Va.

Another benedict, Allen King, of 1207-13th Street South, Fargo, N. D., writes: "You ask me how the world has treated me since leaving Technology. Well, I immediately went to work for the Northern States Power Company, and I am still with the same company. After the usual buffeting around that naturally begins our first ventures I got the job of General Superintendent of the company here in Fargo, and have been thus occupied for three years. We have the electric, gas, street railway, steam heat, and bus utilities here so my experience is varied. I have received very good treatment, so am happy with the company, and look to it for my future."

And from George Prout of 4101 Lemmon Avenue, Dallas, Texas: "I have been down here for three years now and like it. I have the responsibility for the motor, industrial control, and electric arc welding business for the Southwestern District of the General Electric Company. Our district covers Texas, Oklahoma and parts of New Mexico and Arizona, with offices at Dallas, Houston, San Antonio, El Paso, Oklahoma City and Tulsa." — FEARING PRATT, *Secretary*, 120 Main Street, Hingham, Mass.

'23

Perhaps the proximity of the glad holiday season is partly responsible for the remarkable falling off in correspondence this month, and perhaps not. Nevertheless, the call for news for this Review found the Secretary's files practically bare, a condition which is very disconcerting to say the least. We have, however, received the announcement of Willoughby Gundry's marriage to Miss Jessica A. Biays of Hancock, Md., and we wish to offer our congratulations.

We ran into Bob Armstrong the other day, and found him married and happy, working in the Plant Department of the New England Tel. and Tel. Co. He told us that Fred Almquist, when last heard from, a matter of some months ago, was working on a water filtration job for the City of Hartford, Conn. — Jim Bracket, too, seems to have settled for a while in Connecticut. He is with the Armco International Corporation at Middletown. — Then it seems we can record another move for Spike Evans. He has evidently left Stone and Webster and Rising Sun, Md., and is now with the Atmospheric Nitrogen Company at Hopewell, Va. — Walter Zapolski has severed connections with Gavin-Haddin, the stadium builders, and is now back in Boston. He reports seeing Herb Liesk just before he left New York, and says that he is working at Charlie Breed's pet hobby, the elimination of grade crossings.

It is too early, at this writing, to report on the results of the Five-Year Reunion questionnaires, because they haven't been sent out yet. However, by the time you read you should have received yours, filled it out and returned it. If you haven't received one, it is because we haven't your correct address, and it is up to you to let us know about it right away. Those who are still deliberating over their answers to these profound questions, please rush operations and return the questionnaire as soon as possible. The Reunion Committee will base its plans on the results of the questionnaires.

Another reminder to '23 men in and around Boston — meet for luncheon at the University Club, Technology Table, from 12:30 to 2:00 on the fourth Tuesday of each month. — ROBERT E. HENDRIE, *Secretary*, 12 Newton Street, Cambridge, Mass. H. L. BOND, *Assistant Secretary*, 18 Greenwood Avenue, Hyde Park, Mass.

'25

I had a letter from Chick Knight recently, the first news from him in some time. He has left the Associated Factories Mutual and is now with the Metallic Equipment Company, a manufacturer's agent, as engineer, estimator, and salesman. Probably one reason why he likes his job is because he is always moving around. 105 Park Road, Winthrop Center, Mass., is his present address. From Chuck's letter I also learn that: Lin Witham is working for the Underwriters Bureau of New England; Ed Mason has taken a job with the N. C. L. Engineering Company of Boston; and Jocko Malone is getting along very well with the Associated Factories Mutual as an inspector.

Ira M. Chace, Jr., '98, was kind enough to send me clippings from the New Bedford papers, from which I have taken the following: Francis S. Dunbar sailed from New Bedford November 20 on board the bark *Lina*. The *Lina* is one of the last of the square riggers and is sailing on a trading voyage to the Cape Verde Islands. From there, Dunbar plans to go to Africa and later to South America, all as an able-bodied seaman. Last year he went around the world on a U. S. Shipping Board ship.

Yoshio Ogawa is in Oshawa, Ontario, Canada, for a few months, having been sent there by the firm he is working for, General Motors. C. M. Billman, also with General Motors, has been transferred to their Detroit office.

William E. Stone, who has been employed as a student engineer by the General Electric Company, has been transferred to the compressor engineering department of the River Works. Walter C. Woodman, who was also a student engineer, has accepted a position as mechanical engineer with the Brooklyn Edison Company. I am printing a letter from Henry Sachs as the Course V news. The Course I Notes are all about one member, Robie himself. First, and most important, he tells me that he is now engaged to Miss Florence McPherson of Beverly. Congratulations and the best of luck! Secondly, Robie is our representative on the Alumni Council, having taken Henry Hoar's place when Hank moved away from Boston. — FRANK W. PRESTON, *General Secretary*, 17 Gramercy Park, New York, N. Y.

COURSES III AND XII

Within the last month I have received a letter from Gus Marsh. He has been with the Hood Rubber Company, at Watertown, for the last two years. Much of his earlier work there was estimating unit production costs, but at present he is assistant to the footwear superintendent on budgets and statistical control. He informs me that last June 4 saw him going up the aisle with Miss Doris Westlund of Somerville. This event was followed by a motor trip in the Adirondacks.

From what Gus writes, I guess I was somewhat in error regarding Bill Brown's present status with the Norton Company of Worcester. He is now a field engineer with them, in which capacity he runs around the country supervising and instructing in the use of their products.

Through the kindness of Professor Locke I understand that T. A. McEndree sailed from New York on December 8 to take up his duties with the Anglo-Chilean Nitrate Corporation, Casilla 17, Tocopilla, Chile, where he expects to be working with Sherman.

I am greatly indebted to Herb Taylor for a long and newsy letter. Herb is still employed in the coal belt of Egypt, more commonly known as southern Illinois. Despite a disastrous strike which kept the coal mines idle from last March until October, they are now operating, and Herb finds himself a very busy man. The companies in Illinois are at present passing through a transition stage with the hope of changing their mining method in an effort to combat the unions which have made competition with the mines of Kentucky and West Virginia very difficult. Aside from assisting in this development Herb has become very much interested in a new process of blasting coal by carbon dioxide gas under high pressure, and with this it is hoped to cut down their recent hazard of handling high explosives.

During the summer he visited mines in Wyoming, Colorado and Utah, and while in Salt Lake City met an acquaintance of Red Hooper, '24, who said that Red was sorting out "sump snakes, wampweasels and azimuths," and was playing a bass fiddle in one of the local dance halls on the side. Herb has also run into Bill Forrester, '26, who is now operating a doodlebug in Oklahoma and Texas, and he once met up with Eddie Cahill, who is well and happy in St. Louis. Herb requests us to send some Technology men into southern Illinois to keep him from being continually hooted down by Illinois men.

Count Blonsky is still keeping everyone in the Mining Department in a happy frame of mind. The Blonsky table seems to be pretty well developed and already has secured the interest of New York capital. The Count has been doing chemical analyses for Professor Locke during the past month, and proclaims himself now as a real expert on manganese determinations. He has caused considerable excitement about here recently. First he proceded to cover the entire Mining Department under a thick layer of coal dust when he crushed some two tons of coal over one week-end. A few days later he set off a slight explosion, with disastrous results to himself. He received bad burns about one eye and both hands were severely scorched. For the last two weeks he has been sporting bandages on his hands, but they seem to be healing very satisfactorily.

Some of the members of the Course may be interested to know that their Secretary made

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his radio début a few nights ago from the Edison Electric station in Boston, acting as accompanist for a short vocal concert and rendering a piano solo. — F. LEROY FOSTER, *Secretary*, Room 8–219, M. I. T., Cambridge, Mass.

COURSE IV

At this writing, December 11, one of the South Dakota's typical winter blizzards is howling outside, in fact it drove me indoors this morning when I set out to complete a survey for the renewal of a small bridge. Field work, where the wind gets a clear sweep and the thermometer gets down considerably below zero, loses all its fascination.

A few days ago I received a short note from Clarence McDonough, written from the Hotel Britannia in Rome, saying that his two years' labors in Albany had netted him a trip to Europe with travel in Belgium, France, and Italy. His tour lasted nearly five months. He goes on to say that he is returning in order to recuperate and revive his financial self.

Georgina Yeatman is still in India, according to late advice from home, and will not be back to Philadelphia until the last of February. — Lawrence Roy has favored me with an unusually long letter, which reads in part: "Married life is the only solution for a man living away from home, and you may rest assured that I like it very much. We are both working at present and hope that by next year we may build a little bungalow for two. Architectural work in Boston and in the East is about par. In some offices there is very little doing and in others they are in need of men. As for the other boys of our Class: Carl Pratt, whom I see occasionally, Fred Westerman and Mike Radislovich, are still with Coolidge, Shepley, Bulfinch and Abbott. That office laid off a few men last week, but all the boys mentioned are still at work doing design, especially Fred. We are to have a ten million dollar coliseum in Boston. It is to be built on the North Station site and will comprise a station for the Boston and Maine, one of the largest in the country, a coliseum seating 18,500 people, an office building and so on. The Harvard Business School designed by McKim, Mead and White looks very well. I went to the Brown-Harvard game last week and saw the group."

Frank Preston reports that Chick Muhlenberg has left New York City and now lives at 1020 Center Street, Reading, Penna. For a few months Chick will be in Europe, and his address there is in care of the American Express Company, Paris, France. — Francis Field also left the big city to move to 58 Grove Street, Asheville, N. C. — Hubert Barnes moved from Whitefish Bay to 360 Geneva Place, Milwaukee, Wis. — Bob Crosby has established himself at 681 Norwood Drive, Pasadena, Calif.

By the time this article reaches the Class, I hope to have had Christmas dinner in Billings, Mont., with Don Howe, '25, and E. C. Van Blarcom, '26, if any of you remember seeing them around the dormitories. —CHARLES E. PETERSON, *Secretary*, Box 175, Mobridge, S. D.

COURSE V

"A year has rolled by and once again the creative urge to write has set in, so here's the worst of it. As you will see, I still reside in the lovely town of Johanngeorgenstadt, and what's more, for no reason whatsoever, have not lost my job. I am still seeing to it that no lady's hand goes unprotected during the cold wintry months and am aiding civilization and comfort by supplying the glove industry with the necessary brains. This summer I took a vacation into Switzerland in order to see how high the quality of Peter's chocolate really is, and had a rather good time of it. While in a shell out in the middle of Lake Lucerne a nice young storm came along, and I managed to reach shore with water all around me, including the inside of the boat. I also spent some time in the Engadine Valley, experienced a slight earthquake and climbed after some Edelweiss, which is a very rare flower. Doing this, I slipped, but managed to grab hold of two tufts of grass. This was rather lucky, as there was a perpendicular drop of fifteen hundred feet right there, and nothing to stop me but a nice big rock at the bottom. If a full-time partnership in Ford's plant, a Ph.D. degree and a Lorelei were on the top of it, yours truly wouldn't even think of being tempted, as he is now thoroughly convinced of the correct working of the law of gravitation. Outside of that nothing very exciting happened.

"Louis Harris of Theoret fame was up here for a few days and visited me. He is snooping around chemistry laboratories over here with a National Research Fellowship in his left hip pocket, and I certainly was glad to see a fellow from the Great White Factory after two years ostracism. We tasted the beer right where she is made, and shed a tear for Belgium and you dry slaves in the good old States. I also took him to Carlsbad, but just before we left we signed a resolution that, having examined the German as well as the Czechoslovakian variety of female, well, that you can't beat the American girl, or as far as that goes, get anywhere near her. As to song, since this belongs to that famous triumvirate, there wasn't much of it. However, we did let loose one 'I wish that I was back again.' It was all out of tune, and we nearly got thrown out of the place, but just the same it sounded good to me.

"I seriously hope to get a trip back to the States soon and see you and the gang around the Club. This being over here has one advantage, however, for when I read the Class Notes in The Review, it is always with shudders running up and down my spinal column, since I see more and more of the gang becoming untrue to the good old principle of being true to all of them. Personally, I am glad to see that you have not weakened and given way to the false illusion that one girl is better and has it all over the twenty-odd million other ones in the States. I am out of danger, too, and I'd just like to see a girl come around and try to sell me the idea that *table d'hôte* has it over *à la carte* — but then you know I'm out of temptation!

"Seeing it's time for another round of beer, I must quit, but will 'bottom-up it' looking at ye. — As ever, Henry Sachs." — GERALD B. MILOT, *Secretary*, Merrell-Soule Co., Syracuse, N. Y.

COURSE XIV

We received an address change notice stating that Ralph Norton was now staying at the Y. M. C. A., Ansonia, Conn. Since this is his residential address, and his business address is not given, we are left in the dark concerning his job.

Frank Klein is somewhat more communicative. He presents us with a long letter giving some interesting facts about his work. He expects to be detailed to the Engineering Division of the Air Corps in something over a year from now. After that he may get a two years' course at Technology, at government expense. He says "the army is always short of gasoline nowadays — Coolidge economy."

Your Secretary will be in York, Penna., care of the United States Chain and Forging Company after the middle of January. Use this address until we obtain a residence there. We will hold the position of analytical chemist there. — HOLLIS F. WARE, *Secretary*, U. S. Chain and Forging Co., York, Penna.

'26

Of all the Christmas cards received by *der Konvergenzpunkt* that of Barron P. Lambert rang the bell the loudest. "Mr. Barron P. Lambert," it read, "regrets to announce that due to the expense and trouble involved he is not sending you a Christmas card this year." There is something in this VooDoo training after all.

The following communication is from Stuart John: "Last March, I left Kelly, Cooke and Company, with whom I was working at the time of my last letter, and went with the Scofield Engineering Company in Philadelphia. There we worked on the problem of re-designing the power system of Jacksonville, Fla., and I played around with everything from short-circuit currents to bending moments. That was fine stuff until I heard of something more interesting here in Dallas. On the first of July I went to New York, where I worked in the Rate Department of the Electric Bond and Share Company and was taught the art of rate-making under the direction of R. E. Richardson, '85. The office was pretty well supplied with Technology men — F. J. Hecht, Jr., '25, who is now in Cuba; R. M. Barton, '11; and Young, '27. Also, during about half of my stay there I roomed with Dave Harrison.

"I remained in New York until the third of November and then tore wildly for Philadelphia. We were married on the fifth and left immediately for Dallas, stopping off a while in Washington. We left in November and seemed to arrive in August — anyway, it was hot enough to nearly blister the pavements. I'm not bragging about Texas weather, though, as one of the famous Texas 'northers' has just struck us, and we're about frozen. I now have the high sounding title of Junior Rate Engineer, and find my work by far the most interesting that I have struck thus far. This company is great. So far as I can find out, there is a remarkable *esprit de corps* that runs through the entire Electric Bond and Share organization."

The following items have been sent to the Secretary by the General Electric Company and concern men who have been employed by them: James O. Crawford has accepted a position as an engineer with the Bell Telephone Company at Philadelphia, Penna. — Maurice W. Davidson has accepted a position as an engineer with the Bell Telephone Company at Philadelphia, Penna. — Louis R. Taylor has accepted a position as an

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engineer with the Bell Telephone Company at Philadelphia, Penna. — John W. Sanborn has accepted a position as an engineer with the Cuban Telephone Company at Havana, Cuba. — George H. Rockwood has accepted a position as an engineer with the Western Electric Company at Hawthorn, Ill. — Isaac Gleason has accepted a position as an engineer with the Cuban Telephone Company at Havana, Cuba. — Frederick C. Balfe, Jr., has accepted a position as an engineer with the United Hudson Gas and Electric Corporation at Poughkeepsie, N. Y. — Lewis C. Hutchinson has accepted a position as an engineer with the Dallas Power and Light Company, Dallas, Texas.

Judson T. Biehle finished the School of Chemical Engineering Practice in October and is now with the American Tar Products Company with headquarters in Pittsburgh. His mail address for the present is 65 Waldorf Road, Newton Upper Falls, Mass. — A letter from Dick Rothschild indicates that he is with the Alabama Power Company, running the gamut of their training course.

From the morning Boston *Globe* comes this information: Miss Frances E. Henderson of Arlington and Isaac W. Gleason of Reading were married today in the home of the bride's mother. . . . Mr. Gleason has been in Cuba with the International Tel. and Tel. Co." — Indirectly comes the news that Bill Walworth makes frequent sallies into Boston from Lansing, Mich., where he is with the Reo Company.

A letter from Malcolm S. Hird contributes these items: "There are two of the Class within twenty miles of me, and I have seen both of them during the month of November. One is Shick and his description of Ely is mild, to say the least. A true story of its virtues would not be fit to print (except in the Filter Paper).

"I went to Ruth, Nev., to see Hank Barlow, and discovered that he had returned to Chicago. Another mining engineer gone back to God's country. On walking into the club at Ruth in search of Barlow, the first person my eyes landed on was E. N. (Bull) Roberts. We were very much surprised to see each other. He is sweating blood for the Nevada Consolidated Copper Company in the mines at Ruth, and was putting in concrete in their new shaft the last that I heard. I had a letter from E. P. Rexford, XII, in which he said that he was with the Bureau of Standards, Department of Mines, at Columbus, Ohio."

Lee Cummings, back at the Institute as camera-man for the Rochester Technology Club, was in the office during the Christmas holidays. — A clipping from the Boston *Evening Transcript* reports that Bob Dean, now Assistant Professor of Architecture at Georgia Tech, received the Gold Medal awarded by the Annual Pan American Conference of Architects held in Buenos Aires for his drawing of a country inn. John F. Benz won honorable mention.

Obviously *der Konvergenzpunkt* this month is operating as smoothly and efficiently as Guy Frisbie's most expensive dough mixer. — James R. Killian, Jr., *General Secretary*, 13 South Russell Street, Boston, Mass.

Course II

As usual I have nothing startling to report. I'm still marooned here in St. Louis, although four days in Chicago over Christmas went a long way toward boosting my morale.

I had a newsy letter from Masterman early in the month reporting for the bunch with the York Manufacturing Company, which he states is now to be known as the York Ice Machinery Corporation. The original Technology delegation there was augmented this summer by the arrival of Paul Sackett and Braulio Novo, both of whom started their training course with a couple of months on a road test at the Colonial Ice Cream Plant in Philadelphia. Both Bill Hinckley and Masterman had also been traveling a bit, Bill spending a part of the summer in Easton, Penna., on theater air-conditioning work, while Verne spent seven months in Washington, D. C., erecting and testing a dairy plant there. The other members of '26 at York, Ruff and St. Onge, are at present laboring in the complaint and investigation department. Ruff is heading for production work after a summer in which he put in shape an air-conditioning CO_2 plant at the Philadelphia Navy Yard for use in airplane engine tests. St. Onge is lined up for research work in the test plant at York.

Don Chase visited York long enough to disclose that he and Ray Bete are still in the engineering department of Kelly-Springfield and receiving plenty of opportunity to develop their initiative. — Austin Ford spent most of his summer in Waycross, Ga., on an erecting job for De Lavergne and, between the alligators there and his duties as a subforeman, led a strenuous life. He is training for the sales end. — Oscar Willman spent the summer in Europe and is now at Harvard Business School. — Ray Mancha is now an important cog in the manufacture of his father's storage battery locomotives. I haven't been able to get the details yet, but hope to be more explicit after he gets back to St. Louis from the road. — John B. Jacob, *Secretary*, 1037 South Kenilworth Avenue, Oak Park, Ill.

'27

Dick Davy, who was appointed to and duly inducted into office as Secretary for Course XII, has so well maintained a modest silence, that Leonard Riley, III, has consented to chronicle the rovings of the geologists. Inasmuch as Dick seems to have been the only bona fide '27 man who was graduated from Course XII last June, Riley's labors will not be materially increased. Dick, we all know, is somewhere in or about St. Petersburg, Fla. — doing what or whom we cannot discover. Riley, by the way, was back in civilization (Colorado Springs) when he penned his last note.

The only item of society interest at hand came from the Boston *Evening Transcript:* "At a dinner given recently . . . the engagement of Miss Ruth Harriman, daughter of Herbert E. Harriman of Newburyport, to Lawrence T. Littlefield, [II], son of Mr. and Mrs. Edward M. Littlefield of that city was announced." Where are those other ones whose engagements, marriages, and births are ready for announcement?

Lee Miller writes in to say that he hasn't heard from a single Course I or Course XI man during the entire month. A few of the fellows have sent him Christmas cards, but they, of course, contain no news. The inference is obvious. — John D. Crawford, *General Secretary*, Room 3-205, M. I. T., Cambridge, Mass.

Course II

I received today a list of names and addresses of Course II men from John Crawford, but I am quite sure that a great many of these addresses are now obsolete. If any of you feel in the mood and have a few minutes to spare just drop me a line giving your present address and business connection.

Frederick S. Erdman is now located at 3613 Vine Street, Clifton, Cincinnati, Ohio, and writes: "In class news you might mention that I am happily settled here in Cincinnati, working for the Worthington Pump and Machinery Corporation, having started here in October at the bottom, namely the foundry, for a nine months' course through the plant.

Hal Hibbard sends out a call for Technology men in the vicinity of New York. He is now at 71 Watessing Avenue, Bloomfield, N. J., and would like to know of any 1927 men in that vicinity. — David R. Knox, *Secretary*, 4506 Allendale Avenue, Detroit, Mich.

Course III

I have to write in pencil, as my pen and ink are frozen, and my typewriter has not yet caught up with me. I'm back in the high hills of Colorado where they use alcohol for thermometers, of course. My mail has just come in and I hope someone will endeavor to buck the snow, going out with this letter in time for the February issue.

Due to conditions stated in my last set of notes, I neglected to give the whereabouts of Rollo Crowley and Albert Schaad. Having received a letter from the former, I can now supply the first, and I hope soon to hear from the latter. Rollo is working in the U. S. Steel mine at Cornwall, Penna., following a ten weeks' observation course at Bethlehem. He finds his job of surveyor interesting. He reports that P. A. Hodges has sailed for Braden, and he gives Louis A. Arana's address as 1187 Plaza de la Exposicion, Lima, Peru, S. A.

Charles Gay Drew, whom I mentioned in The December Review, is a separate individual from the famous Chink Drew of '28. The former's athletic prowess was confined, during his stay at Technology, to fighting fires at the Beacon Oil Refinery and noon battles at Walker bridge tables. He took his surveying course last summer and so does not receive his diploma until January. When last seen he was heading for Cia de Penoles, Mapimi, Durango; in other words, for the heart of Mexico.

We note with deepest regret the passing of Hank Barlow. He is not dead, yet, but for the reputation of Course III he should be. Since he has taken to Chicago this prophecy may soon be realized. To think of a man spending four years learning to be a mining engineer and then descending to "bond selling!" *O tempora, O mores!* And as an excuse for this blow he says that mining camps are not as attractive as Chicago. Your correspondent thinks *cherchez la femme* would bring to light a more valid explanation. Any one desiring more light may reach him at the Allerton Club Residence, Chicago, Ill.

The members of Course III are so widely

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scattered even six months after graduation, and this here Secretary has been moving so fast that ordinary mailing methods seem to be insufficient. Perhaps The Review could put an airplane and pilot at my disposal. Lindbergh, Byrd, or Hank Hurt will do, if they are able to land on a mountain or headframe. I am sending these notes from Carter's Mine, Gold Brick Mining District, Ohio City, Colorado, but please notice that I receive my mail through my home in New Haven. — L. B. RILEY, *Secretary*, 121 Whitney Avenue, New Haven, Conn.

COURSE V

Gee! It's cold here. For the last few days the thermometer has been hovering between ten and twenty, and one morning, two weeks ago, I went out to find it five above.

Another good man has fallen, Eugene (Chippy) Chase was married recently at Elkton, but I have not got the details yet. — The foursome working for the same company as Chippy — du Pont — have a little excitement once in a while. In December one of the small dynamite houses let go and the house, the machinery, and a thousand pounds of material disappeared. However, I am not called on to write obituaries because they are in the Eastern Laboratory, which is not connected with the plant end of the organization. Peterson assumes the risk, or vice versa, of transporting Jim Castner and Ken Vint to the plant in an old Buick. Ken wrote that Pete was doing engineering work; this may be in connection with the continued and sustained performance of said Buick.

There is another foursome in or about Boston. Joe Brady and Joe Burke are adding something to their weekly existence that is highly worth while, namely attendance at Sunday concerts. Music — the right kind — is a great soul-lifter. The other two, McArthur and George Standley, are both in the instructorial field. Mac is teaching general science in Reading and helping out in the freshman labs at Technology. George is two floors higher than Mac, a full-time assistant in Dr. Huntress's lab. His present aim is to finish a paper for Professor Mulliken on heterocyclic compounds.

I would very much like to hear from Decker and Jimmie Small, and I am sure some of the other fellows would, too.

I almost agree with the statement one of you sent, that "The Group is surely going to the dogs with thirty-three per cent fooling with explosives and the rest (or all) thinking of women." Therefore, it is in order that I add, "Don't forget to send out those Valentine Greetings this month." The last is given out without my receiving a retainer from the Valentine Greetings Booster Association. — EDWARD T. DUNN, *Secretary*, 205 East Stoughton Street, Champaign, Ill.

COURSE VI

Success. I have at last begun to receive the letters that I have been waiting for so long. Such coöperation on your part will help to make this column less of a one man affair.

Tweeddale, as a result of what he calls my personal indictment of him, in other issues, has found it necessary to come forth with an elaborate defense of himself and others who have received similar treatment. He denies all reports of his being homesick, and even goes as far as to say that "she" won't even let him come home for Christmas. He also claims that the rumor about Duke Weller being married is unfounded, but what I say before goes and Duke has got to stay married until I hear from him. — Elwood has finished the D. C. part of his course with the New York Edison and expects to spend most of the winter in the Dunwoodie substation.

Earl Payne writes that he has been with Westinghouse since the first of September and has a room in Wilkinsburg, Penna. It seems that Earl has been very fortunate in his choice of a landlady with the result that he is regarded with a great deal of jealousy by other of the fellows in that section of the country. The lady in question apparently has the faculty of making excellent beer. — Eli Sax writes from Minneapolis, Minn., the information that he is now an instructor in the department of mathematics and mechanics in the University of Minnesota. He says that he now has more respect for the hardships that instructors at the Institute have to bear.

While in school I never had much regard for the teaching profession as a life work, but since my ideas have changed greatly. In fact, if it were not for the tutoring I have been doing evenings, I am afraid that life would be a sordid existence on the few dollars which they tell us is really overpay while we are gaining experience.

Several of the fellows, in writing me, have expressed the desire that I enlarge more upon my own accomplishments in spite of my recent threat to devote the whole column to them in the absence of letters. I have about finished my work in the electric plant, and about the first of the year I will go into the office for a few months. About the most interesting work I have run into recently has been along detective lines. Certain customers here are suspected of stealing current from our lines. The problem involved consists of proving that they are doing so, finding out how they do it, and then finding a method of preventing further theft. In this work some very clever methods of obtaining current without it being metered have been unearthed. Some customers take the precaution to allow the meter to register part of the time while in other cases meters haven't registered at all for months, due to no fault of the meter itself. In this way I have learned things about meters that Professor Laws probably knew but never taught us. In all of my work in the electric company I have found contact with the public to be the most interesting part.

In order to put myself on a more sound financial basis I have gone in with two other fellows, and the first of the year we will come forth with a battery-charging and radio-service business. I earnestly solicit patronage from all points except Porto Rico, although we hope in time to be able to open up a branch office there. I will devote only my spare time to this business.

I now have a file of the known addresses of the fellows in the Course, and if any of you wish to get in touch with some one of whom you may have lost track, I would be glad to supply you with any information I may have. Furthermore, I would like to make my file complete, and hope that those of you who have not written would at least drop me a line with your present address on it.

I appreciate the letters and hope that I may get more of them containing more information that I can pass on to the other fellows. And please note that I have changed my address. — CHARLES A. BARTLETT, *Secretary*, 258 Lamartine Street, Boston 30, Mass.

COURSE X

After disappointing the Course with my failure to give any news last month I should crash through with no end of information, but the hopes raised by seeing this Course X heading are nearly groundless; I have received but a couple of letters this month.

I have profound apologies to make to Bob Bonnar. His letter arrived when I was in the midst of a filter test at the Revere Sugar Refinery and, after one hasty reading, it disappeared, perhaps to reappear in some one's coffee. He is working with a paper company in Lawrence, if my memory holds. Guise, he said, was working with the Cities Service with Kaplan and Fletcher.

A letter from Ferguson disproves some of my previous predictions. What with some months labor on various stills, which he calls by mysterious technical names, he feels able to approach the task of writing a 10,000-word report on "The Historical and Theoretical Development of the Bubble Tower." After his experience in grinding out imaginative material for *The Tech*, such should prove easy enough.

Art Connolly has forsaken the profession! He spent the summer with an oil company, and then decided that engineering was not for him. He is now studying law at the Harvard Law School and taking business courses on the side. As if the Law School were not enough! In a few years we shall all receive the announcement that he is hanging out his shingle and would like our business. He is undecided whether to move to Chicago or to make Course X his clientele.

We of the Practice School have finished our plant work and now have until June back in school proper. It might be interesting to note that the "topless and bottomless Ford" did run until the end, although an inventory of parts shows a great loss since last June. — DONALD H. SPITZLI, *Secretary*, 49 Bridge Street, Springfield, Vt.

COURSE XV

At last I'm beginning to feel encouraged — yea, even enthusiastic about this job of Course Secretary. Just think, gang, there was a 100 per cent increase in returns this past month. In other words, I received four letters this month and only two the month previous. However, the thing that tickled me most was that those who did write not only sent news of themselves but of every Course XV man that they knew anything about. That's the spirit, men. I just hope you all do likewise when you write, and I want to thank those who have written me so far for their thoughtfulness in supplying me with dope on their classmates.

Carl Davies writes from Charleston, S. C. He is with the A. C. Tuxbury Lumber Company, of which his dad is Vice-President. Believe me, Carl is certainly putting his Course XV training into practice. Since he started work he has started a task and bonus system on some loading machine work out in

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the pine forests. Then he has been acting as supervisor in the turpentine department, fooling around with casualty insurance, studying purchasing, looking over new timber lands, and other little odds and ends. He gets up at six o'clock and has a ten-hour day, so we can't call the old boy a slacker, can we? He must be getting some wonderful experience, and here's wishing him best of luck. By the way, Carl's engagement to Miss Harriet Goodacre of West Newton was announced last June, so now we know why he's so darned industrious all of a sudden. (Never mind the wise-crack, Carl.)

The other day I received a registered letter that must have given the letter carrier a lame arm. It certainly was a whopper. Enclosed was a three-page letter from my old buddy, Glenn Jackson, and attached to his letter were missives from Bob Bigelow, Carl Davies, Ray Leonard, Dick Cheney, Wheaton Hutchinson, and how. Evidently Glenn has appointed himself as my sub-assistant-vice-Course Secretary. I don't know how to thank him enough. Believe me, he ought to get the distinguished service medal.

Glenn journeyed to San Antonio, Texas, last June to enter the reserve training course for the air service at Brooks Field. When he arrived there he was informed that as he was not of age he could not take the course, but would have to enroll as a flying cadet. Then he tried to get permission down there to be shifted to the reserve training on his coming of age. For some reason he couldn't get what he wanted, and after a week of official and unofficial swearing, writing, and telegraphing, he became disgusted with government red tape and left for St. Louis — only to later receive a note from Washington that his request had been granted. After traveling for a while he finally landed in Boston and tried to get a job with some airplane company. Failing to find an opening in that line he accepted an offer from the Slater Company, Webster, Mass., in the textile finishing business. He has been doing task and bonus work and time studies.

Bob Bigelow is working with Dick Cheney, Guy Frisbie, and Ave Stanton for the Hobart Manufacturing Company. Bob was located in Troy, Ohio, but has been transferred to San Francisco. He and Dick were told that one of them would have to go to 'Frisco, so they tossed a nickel and Bob won. He is in the sales department, and is probably thinking up new selling points right now. — Tom Russell sends news of himself and of George Bergman, Bob Wise, Ralph Stober, and Ernie Nevers. Tom and Ernie are both located with the Sullivan Machinery Company at Claremont, N. H. George Bergman and Bob Wise were evidently summering in New Hampshire, and when they bumped into Tom the "Unholy Three," as they called themselves, had one grand reunion. Probably the entire populace of Claremont is now well aware of the fact that "Tech is Hell."

George is favoring the J. P. Soule Construction Company with his services and is at present working on the John Hancock Life Insurance Company job in Boston. — Tom says that Bob Wise is in the ice cream business, but from the way he writes, I've a hunch that perhaps he's pulling my leg — as the saying goes. — Ralph Stober is with the Simplex Wire and Cable Company.

Percy L. Richardson also spilled us a little news this month. He is engaged as assistant to the supervisor of power for the West Virginia Pulp and Paper Company at 200 Fifth Avenue, New York. He says that Carol E. Osgood is in the plant engineer's office of the Boston Woven Hose Company of Cambridge. George Munroe is working for the same company, doing time-study work.

P. J. Ward is also working in New York in the office of the Certainteed Products Company. — Irving Plant is with the Public Service of New Jersey as cadet engineer. I wonder if Irving took his big bass horn down to Jersey with him. If so we ought to hear him broadcasting some of these days.

By the way, Johnny Crawford has sent me all of your addresses, so that you will probably get a card from me between now and the time this is published. Till then, good luck and long live Course XV! — GEORGE C. HOUSTON, *Secretary*, 612 Prospect Street, Maplewood, N. J.

News from the Alumni Clubs

Technology Club of Fall River

DR. DEWING of the Harvard Graduate School of Business was our guest and speaker at our first meeting this fall, which was held the evening of November 20, in President Haffenreffer's bowling alley. Previous to the meeting, President Haffenreffer was host at dinner to a party of eight, including Dr. Dewing. The meeting was called to order at half past eight, with our President introducing our speaker, who made some very interesting comments concerning general business principles. He cited several cases where old machinery was efficient enough for the purpose for which it was to be used, where the installation of the most modern devices was not warranted. After the conclusion of Dr. Dewing's talk, two bowling teams were chosen, one captained by Dick Gee's team, the other by Herb Smith. The match was hard fought from start to finish, although Dick Gee's team won by a good margin. Neither Mr. Durfee nor President Haffenreffer would consent to bowl, but it is hoped that a match between them may be arranged at a later date. The refreshments which were served during the evening were enjoyed very much by all the members, and it was not until after eleven o'clock that the meeting came to a close, with each member thanking our President for his kind hospitality. — ALDEN D. NUTE, '17, *Secretary*, 461 Highland Avenue, Fall River, Mass.

Indiana Association of the M. I. T.

The evening of December 15 brought together the Hoosier representatives of Technology in a Christmas party. The affair was held in the Athenaeum, which lived up to its gustatory reputation by serving an unusually good dinner, supplemented by several rounds of what we shall call, for publication purposes, a delicious beverage.

Following the dinner, a group picture was taken by W. W. Bonns, '99. The annual election of officers then took place in the style which makes Indiana politics famous. Conspirators J. L. Wayne, '96, and John Burford, '16, local citizens not under grand-jury indictment, constituted the nominating committee and presented two slates of officers. The incumbent President and Secretary withdrew from the race. After the votes for President were counted, a tie was revealed between nominees J. W. Stickney, '96, and Norman Doane, '15. Stickney then announced that he did not choose to run things in 1928, so Doane was declared President.

A. A. Potter, '03, Dean of Engineering at Purdue University, took Vice-Presidential honors, L. W. Bugbee, '21, Secretarial honors (if any), with D. C. Hooper, '26, retaining his position as chancellor of the exchequer. In loving token of services rendered during the year just closed, the Association presented the retiring President and Secretary, respectively, with a famous Woolworth brand saxophone and harmonica (presumably so that they can sing the blues). A rhapsody in blue was then rendered by these ex-officers, sans encore.

The reports of the Secretary and Treasurer for the year 1927 were presented and accepted. A proposal to reduce membership dues from $3.00 to $1.00 a year was discussed, but no action was taken.

Program Committee Chairman W. B. Parker, '88, appeared in the rôle of Santa Claus and supervised a grab bag. In each gift package was enclosed a verse, which the holder had to read and put into effect. Thus was the retiring President, H. S. Morse, '03, obliged to sing the first two verses of the National Hymn in his untenable tenor, to the delight of an unusually critical audience.

The meeting closed with an interesting talk by A. I. Franklin, '98, on methods used in the production and distribution of the new Venus shoe polish, a product which is based on an entirely new chemical principle.

Those in attendance were: W. W. Bonns, '99; H. S. Morse, '03; D. C. Hooper, '26; E. M. McNally, '18; A. I. Franklin, '98; J. L. Stickney, '96; W. B. Parker, '88; N. D. Doane, '15; J. N. Burford, '16; L. M. Dalton, '19; L. W. Bugbee, '21; J. L. Wayne, '96; F. C. Balke, '14; and the Secretary.

The Indiana Association looks forward to 1928 as a year which should witness bigger and better meetings and programs. — FRANK J. TRAVERS, '23, *Secretary*, 210 East McCarty Street, Indianapolis, Ind.

Southwestern Association of M. I. T.

The last regular luncheon of the "has-been" Technology students in this part of the country, otherwise known as the Southwestern Association of M. I. T., was held on Wednesday, December 7, at the University Club. In spite of the fact that the day was one of the coldest and stormiest of the year and that the notices were late in getting out, we had fifteen present. The fifteen were: O'Brien, '18; Brown, '20; Robb, '21; Timanus, '18; Cushing, '11; Hall, '23; Pomeroy, '23; Golsan, '12; Sholtz, '22; Falkenberg, '19; McPherrin, '14; Henrici, '06; Crenshaw, '24; Hertz, '06; Rapelye, '08. Most of these men are very active, and usually attend our luncheons, but there were several among them who seldom attend, and we were mighty glad to see them and hope to make regulars out of them.

After luncheon, Hall, who is employed by the Kansas City Public Service Institute, gave us an informal talk on the work of that group, and by way of illustration, gave us some detailed information regarding water rates in Kansas City, present and prospective. The talk proved to be very interesting as well as instructive. It was decided at the meeting that if enough present Technology students from Kansas City return home for the holidays, we will arrange a meeting when the Alumni and active students can meet each other and become better acquainted. We will tell about this meeting in the next issue.

The Southwestern Association hopes that if Alumni from any other part of the country happen to be in Kansas City on the first Wednesday of the month, they will look us up and meet with us. If they are here at any other time, look us up anyway, and we will see that they meet some of our men. — Bransford W. Crenshaw, '24, *Secretary*, Henrici-Lowry Engineering Company, 402 Security Building, Kansas City, Mo.

The M. I. T. Club of Western Pennsylvania

The second meeting of the year was held on December 9 (meetings are always on the ninth of the month) at the University Club. Twenty members gathered to hear Colonel P. R. Hawkins, '89, assistant to the President of the Standard Steel Car Company, tell in a very interesting manner of his equally interesting trip, taken in company with about sixty other prominent Pittsburghers, down the Ohio and Mississippi Valleys for the purpose of inspecting the waterways improvements, the docks, the terminals and the river craft that the cities below the Smoky One have built in order to use more effectively the natural advantages of the rivers.

Unfortunately there were not many at the meeting who had been at the Institute as far back as '89, and this deprived those who did attend of hearing some real good stories about the gay nineties and before, which the speaker omitted to recount because he feared that the very young assemblage might not comprehend or sympathize. He suggested, for instance, something very spicy by a too hasty reference to a professor who was reputed to have had two brains and one lung. Colonel Hawkins also knew Francis Amasa Walker when he was a newspaper reporter, more of which would have been very interesting.

The journey to the South, which was Colonel Hawkins's chief excuse for talking, occupied nine days, and each of the sixty prominent Pittsburghers occupied a compartment in a very special train, consisting of maids, barbers, valets, baths, parlor and observation car, club car and all the other things you have not on the Boston and Maine. So equipped and so occupied, the prominent Pittsburghers traveled to Louisville, Memphis, St. Louis, Houston, New Orleans, Birmingham, back to Cincinnati, and so to Pittsburgh, at each place meeting equally prominent citizens. If the reaction of the speaker of the evening may be taken as a criterion, all the prominent Pittsburghers returned home with a keen sense of humility over the meanness of their city's accomplishments along certain lines in comparison with the more sizable ones of the cities which they visited.

The waterfront development at Louisville, the eighty-seven million dollar public improvement program at St. Louis, the warehouses at Houston, the canals at New Orleans, the aspirations at Birmingham toward having its piraquas across the mountains in Birmingport on the Warrior River — all these things excited the admiration of these modern De Sotos.

Other Technology men from Pittsburgh who went on the tour were: F. J. Chesterman, '05, Vice-President of the Bell Telephone Company of Pennsylvania; G. M. Gadsby, '09, Vice-President of the West Pennsylvania Power Company; Morris Knowles, '91, President of Morris Knowles, Inc., Engineers; and W. F. Rockwell, '08, President of the Pittsburgh Equitable Meter Company.

George W. Ousler, '16, President of the Club, presided at the meeting and Grafton Duvall, President of the Pittsburgh Press Club, introduced Colonel Hawkins.

The weekly luncheons, to which men from out of town are cordially invited, are Fridays at 12:15 or thereabouts, at McCreery's, in the department store of the same name. — Arthur W. Skilling, '21, *Secretary*, 507 Westinghouse Building, Pittsburgh, Penna.

Detroit Technology Association

At our last monthly meeting the officers of the previous year were reëlected to serve for 1928. This list is as follows: President, P. C. Baker, '16; Vice-President, C. W. Loomis, '16; Treasurer, S. C. Greene, '85; Secretary, E. F. Doten, '19.

The high spot in the yearly activities of the Detroit Technology Association is the annual dinner, scheduled for February. Plans are well under way to make this one of the best ever held. As per custom, one of the leading industries is chosen as the subject for the speakers, and the leading figure here in Detroit, as well as the leading figure in the Institute at Cambridge, is the goal for the speakers' committee.

It is interesting to note that attendance at our regular monthly dinner meetings is showing a very decided increase over a corresponding period last year, but still the capacity of the University Club has not been reached. We trust that out of town Alumni who chance to be in Detroit on business, or otherwise, on the nights of our regular meetings, namely the first Monday of the month, will join us. — Everett F. Doten, '19, *Secretary*, 132 Pingree Street, Detroit, Mich.

Technology Club of Rhode Island

Dennie never fails to attend the Club's annual bowling tournament which ensures the success of the meeting from the start. Every one wants to be there to see the fireworks when he starts rolling the big balls down the alleys. This time he surprised the boys by turning in one of the high scores, 394 "honest" pins. His only real competition was from Howard C. Fisher, '09, with the amazing total of 483 pins, too good a score to deserve the title "honest."

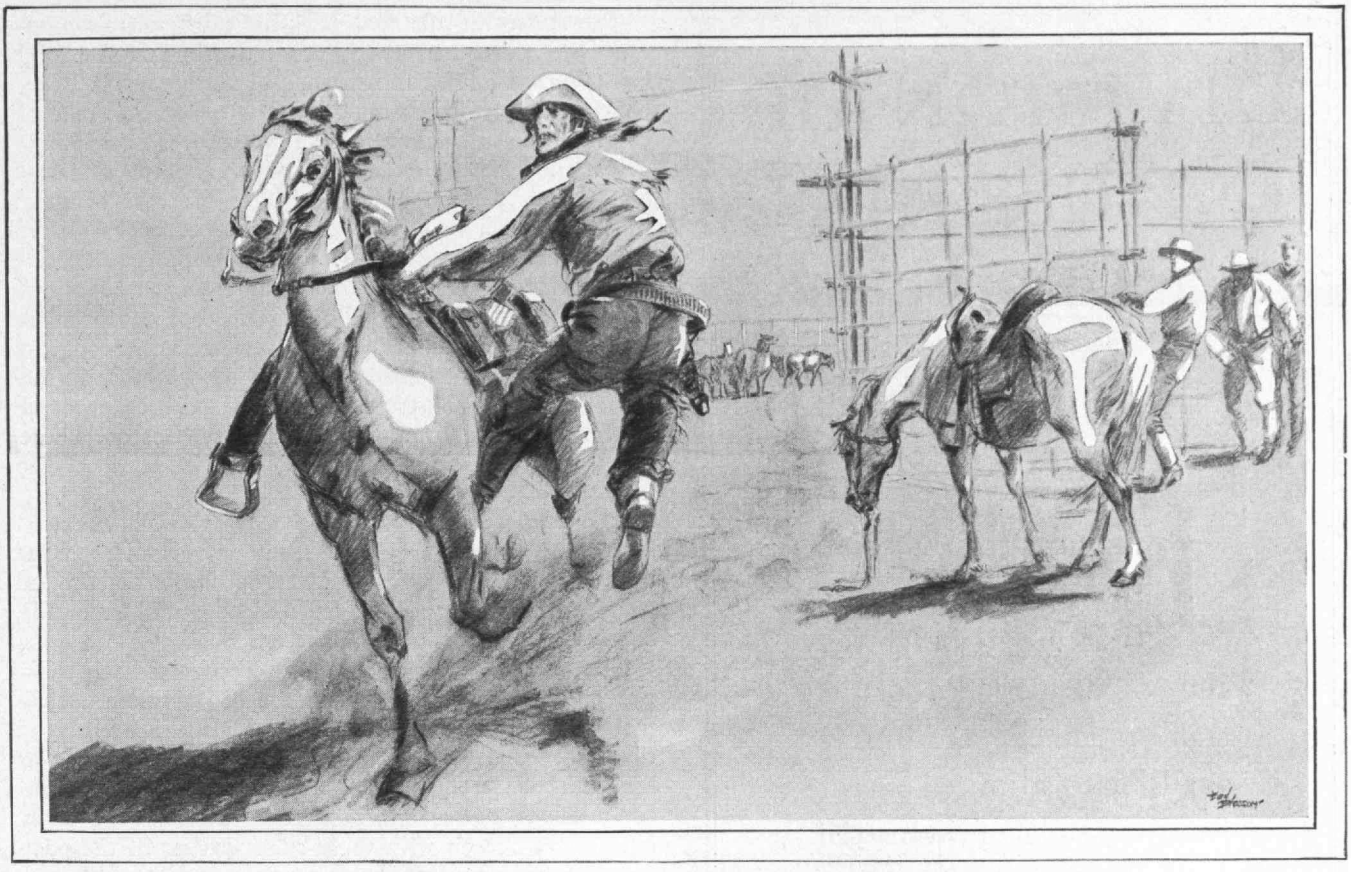
The bowling tournament which has come to be an annual affair is one of the Club's finest drawing cards. The meeting and dinner are always lively and the bowling tournament a riot. No member of the Club is absent from this meeting if he can possibly get there. This year was no exception, for we had seven guests besides the regular membership.

The guest of honor for the evening, Dennie really being one of us, was the President of the Providence Engineering Society, Samuel D. Fitzsimmons. Other guests of the Club were J. A. Wayne, '24, Glenn D. Jackson, '27, James R. Moore, '19, Malcolm B. Beattie, '23, and Fred Ashworth, '24.

The teams for the evening were captained by O. B. Denison, Hovey T. Freeman, John C. Nash, and Howard Fisher. A close contest quickly developed and the four teams alternated in position during the whole evening. In spite of Howard Fisher's brilliant string of 202, Nash's team pulled into the lead with a score of 2,242. Fisher's team was second with 2,177, followed by Freeman and Denison with 2,080 and 2,021 respectively. Dennie came through as high man on his team. He was terribly handicapped by one Maurice S. Chapin, '10, who found the combined coaching efforts of his teammates too confusing to raise his batting average.

Glenn D. Jackson, '27, on Hovey Freeman's team, gave a good account for himself for two strings, but weakened toward the last just enough to drop his team to third place. He still finished high man on his team, however. He had never rolled the big balls before, which made his score the more remarkable. The rival camps of Brown and Sharpe and the Providence Gas Company, represented by Samuel Fitzsimmons and R. L. Fletcher respectively, helped raise the score of Fisher's team. They could not overcome the teamwork of Nash's champions of last year and had to be content with second place.

The Club is looking forward to the coming meeting in January with a great deal of anticipation as some of the undergraduates will have the entertainment program in hand. The older members have something to learn from the present crop of students, and we want them to be present at this Undergraduate Meeting. — Walter C. Wood, '17, *Secretary*, 121 Albert Avenue, Edgewood, R. I.



"Get the message through"

An Advertisement of the
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IN THE Sixties the "pony express" carried the mail over mountains and Indian wildernesses from St. Joseph, Missouri, to San Francisco. The express riders and station keepers won undying fame for getting the message through, regardless of hardship or danger.

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There are no instructions requiring Bell System employees to endanger their lives. It is the spirit of communication that bids them, "Get the message through."

Continued from page 233

The author of this book is of the third spiritual generation of those men who have labored in a professional capacity to bring about these city improvements. They constitute what is becoming known as the priesthood of a cult — the cult of landscape architecture. Their weaknesses and lacks have been the subject of many a critical essay; they present to the outsider, because of their writings, much material for snickers. It appears that Olmstead was the prophet. After him the mantle fell on Charles Eliot, who founded the Harvard School of Landscape Architecture. The disciples of the prophet have scattered over the land preaching and healing; in the case of this book, largely preaching, for most all the cases of healing cited are the work of the prophet or of his immediate followers in the holy city, Boston. There are a few references to smaller miracles on the West Coast.

The overly elegant language of this preacher is perhaps due to divine inspiration, but one wonders at its effect on some of our advocates of simple and direct speech. Its use of "honorable" and "devoted" reminds one of the "Letters of a Japanese Schoolboy."

The work is to set forth "the unrecognized possibilities of the profession and the art of landscape architecture, and the genuine need for a clearer interpretation of its ideals and principles." It is sales talk of the kind that has won for Mr. Cram of Boston innumerable commissions and several degrees. Is there a suggestion here of the reason why those silent artists of the past were able to create art? It is now, however, a recognized custom that the artist try to write about art as well as to create it, so we have Cram, Corbett, Lorado Taft, Kenyon Cox, and Stephen Child producing their volumes.

One marvels at the extent to which some of the landscape architects have influenced politicians, and sees no nice way other than talk by which this could have been accomplished. Then, too, there is the necessity of the "education of the public who control our destiny," but there is room for regret that there must be so much ballyhoo among the professions.

Of the publicists mentioned above, it seems that the landscape architects represent the healthiest force in city growth. Certainly such projects as Mr. Corbett's three-deck streets, and Mr. Ferris's imaginative views of the city of the future only increase the grip of the metropolis on us. Man, like Frankenstein, having created this thing, is about to be swallowed up by his creature. Any tendency that allows the populace of a city to see and feel some of the other forces of nature than the will and power of man is to be encouraged. The work of the landscape architect is to furnish the opportunities near at hand for the contemplation of nature.

Mr. Child takes up the whole scope of landscape architecture in the form of a series of letters to a hypothetical client, a broad-minded layman of modest beginnings who achieves success without losing his broad-mindedness. With many quotations from the words of the prophet, the client is led from modest home grounds to a formal garden design, then to grounds for a large home. The client directs, upon achieving prosperity

(*Continued on page 256*)

Continued from page 254

and with the aid of Mr. Child, the planning of a group of small houses, a large hotel establishment and after that a neighborhood of modest homes. Through the successive stages of village improvement, playgrounds, rural park development in a large city, a system of parks, and a metropolitan park system the client is skillfully guided until he becomes chairman of the city planning commission.

Each letter is illustrated by drawings and maps none too profuse for an art appealing chiefly to the eye. In the later chapters there is a great deal of valuable information on the Boston city plan, with maps and diagrams. The aims of the authors of this plan are well understood by the writer and are explained with clarity. By far the best chapters are those dealing with Boston parks. Franklin Park as it was planned is taken as one example.

The volume has exceedingly valuable notes, a bibliography and an adequate index. It is carefully prepared and well printed and a credit to author and publisher.

ROBERT C. DEAN, '26

CREATIVE KNOWLEDGE — OLD TRADES AND NEW SCIENCE, by Sir William Bragg. $3.50. xii + 258 pages. New York: *Harper and Brothers.*

In the 1925 series of "Christmas Lectures" given under the auspices of the Royal Institution of Great Britain, Sir William Bragg explained, for the layman, the theories of science involved in present-day navigation, metallurgy, textiles, dyeing, ceramics, and mining. The lectures make up the substance of this book.

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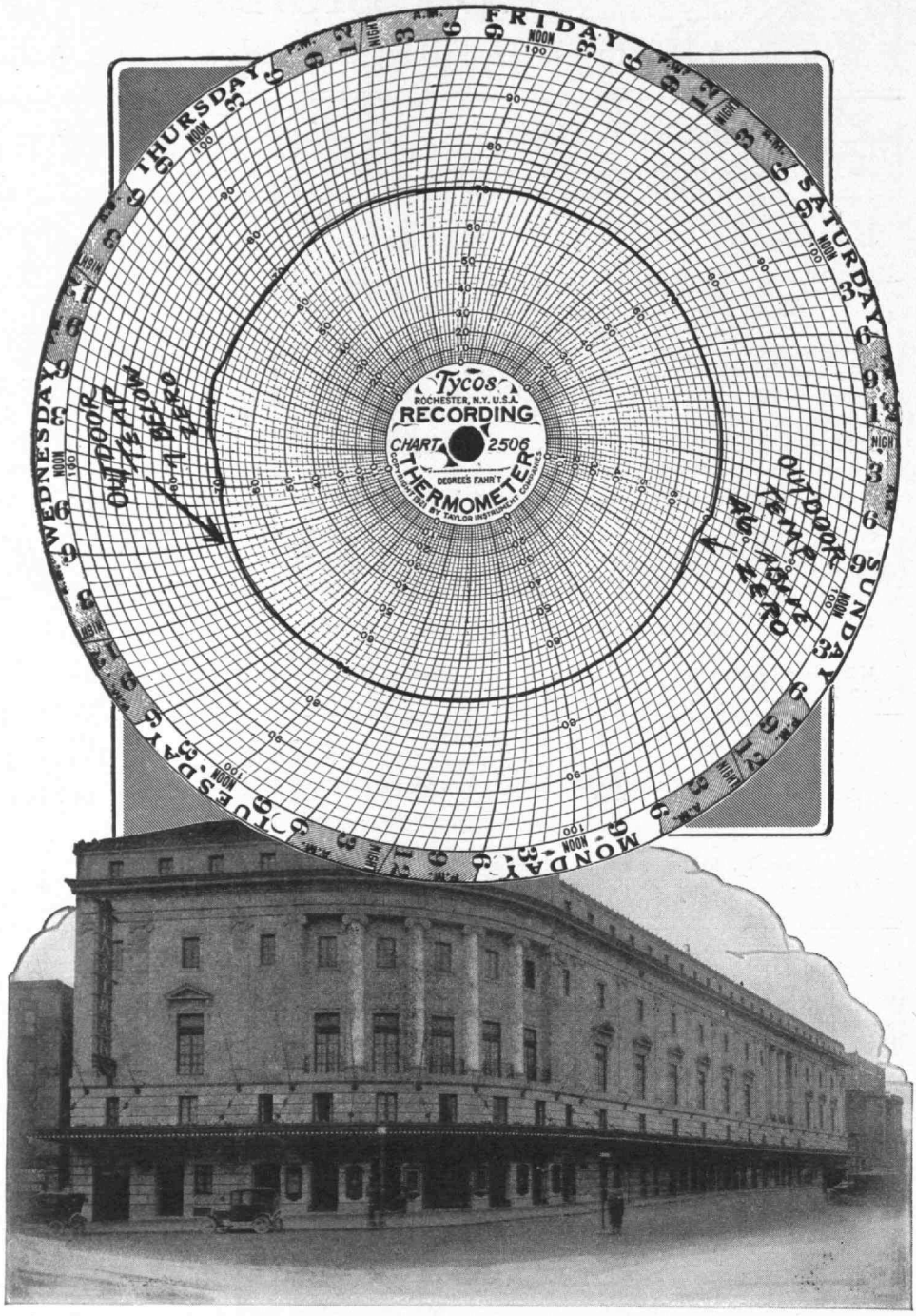

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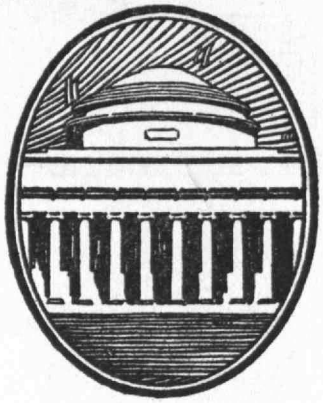

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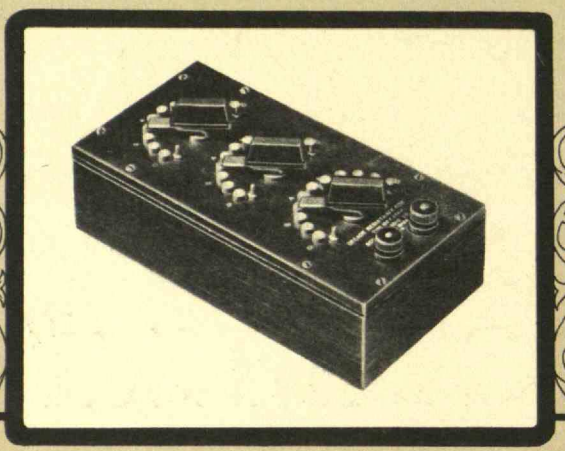

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